THE

PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

We have generally an announcement to make, but not often of so much importance as that of this day. It is the discovery of the Pool of Bethesda.

The modern identification of this Pool with the Birket Israil, north of the Haram, has never been accepted by any who have studied the question. The twin pool at the Convent of the Sisters of Sion has been of late years generally believed to have strong claims. The new discovery, however, removes the Pool to quite another place.

The Algerian Monks (French), *see* p. 115, digging on the north-west of St. Anne's Church, came upon a tank, about 100 feet distant. Crossing a courtyard and entering by a narrow passage, a building, measuring about 70 feet east and west, by 25 north and south, with an apse at the east end, was found. Its floor (about on the level 2,400) was some 7 feet below the general surface of the courtyard. Under this building are vaults about 10 feet deep, the floor level being that of the surface of the natural rock. Through the floor of these vaults a cistern is reached, cut in rock to a depth of 30 feet. It lies under the line of the building (apparently a church) with an apse, above-mentioned. Its measurement east and west from one rock wall to another is 55 feet; north and south it measures 12½ feet, but the north wall is of masonry, with four piers standing on rock bases supporting arches; the spaces between the piers have been filled in with masonry after building, probably at a later period. A flight of twenty-four steps leads down into this pool from the east scarp.

The church or chapel was probably built at a later period, when the surface level was within 6 or 7 feet of its present height, after an accumulation of 10 feet of earth over the rock, which, as we shall see, seems to have been still visible in 1172 A.D. This is also indicated by the position of the walls, over the pool. The vaults from the rock surface were no doubt constructed to bear the floor of the new church.

What is, however, of still greater importance, Herr Schick has found a second pool to the west of this, forming what is called a twin pool. The

interest of this discovery lies in the fact that the Pool of Bethesda had five porticoes. Now the only possible way for a pool to have five porticoes (unless it is a pentagon) is to be a double or twin pool, so that there may be one portico along each side and one for the wall of separation. Sir Charles Wilson, in his new edition of the "Bordeaux Pilgrim" (Palestine Pilgrims' Text Society), has drawn up a list of the principal authorities on this subject. From this it will be seen that there is a continuous chain of evidence from the 4th to the 12th century, both inclusive.

We publish simultaneously with this number of the *Quarterly Statement* an account, with maps, plans, and illustrations, of Fahil, the ancient Pella, by Herr Schumacher.

Little is known of the history of Pella, except the one fact which makes it remarkable, namely, that the early Christians retired thither when the troubles of Jerusalem began.

The Basilica, which Herr Schumacher describes, presents many curious details, and the system of caves with passages deserves a much more complete examination than Herr Schumacher was able to give. Copies of this little volume, uniform in size with "The Jaulân," can be had by subscribers on application to the Central Office only.

There is in the Press, to be published in October, Dr. Post's "Journey to and round Damascus." The account we shall produce will be the popular narrative, accompanied, however, by the chief Botanical results.

The List of Old Testament names and identifications was issued last year. That of New Testament names, which contains the references in Josephus to the New Testament places, is now ready. Subscribers can have copies of the latter, separate, at 1*s.*, and of the two together, in paper cover, for 3*s.*, and bound for 3*s.* 6*d.*, by application to the office only. To the general public the price of the book will be 6*s.* 6*d.*

As already announced, with the view of clearing off the MSS. which await publication, the Committee have resolved on issuing an edition, in form similar to, and uniform with, the "Survey of Western Palestine," of the following works:—

1. Conder's "Survey of Eastern Palestine," so far as completed. The MS. is very voluminous, containing as much as will make a volume equal in size to those of the "Memoirs" in the "Survey of Western Palestine." None of it has been published; the drawings are very numerous, and of the deepest interest to the student of prehistoric monuments, as well as for the illustration of the Bible.
2. The Archæological Mission of M. Clermont-Ganneau, with the drawings of M. le Comte.

   These drawings are many hundreds in number, and executed in the finest style. They figure a vast number of monuments and ruins not in the "Memoirs."
3. The Flora and Fauna of the Wady Arabah, by J. Chichester Hart, Esq., accompanied by many drawings of plants, &c., in the best style.

The editions will be limited to 500. The first 250 subscribers will pay seven guineas for the three volumes; subscribers to the "Survey of Western Palestine" will be privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the agent.

The Palestine Pilgrims' Text Society has now issued the following works :—

1. "The Holy Places visited by Antoninus, Martyr."
2. "The Pilgrimage of the Holy Paula."
3. "Procopius" (Buildings of Justinian).
4. "Mukaddasi" (Description of Syria).
5. "The Bordeaux Pilgrim."
6. "The Abbot Daniel."
7. "The Crusader's Letter from Acre to England."

There are in preparation, and will be issued before the end of the year :—

1. "The Norman-French Description of the City and the Country." Translated and annotated by Captain Conder, R.E.
2. "The Travels of Nasîr-i-Khusrau." Translated by Guy Le Strange.
3. "Arculfus de Locis Sanctis." Translated by Rev. R. Macpherson, and annotated by Sir Charles Wilson.

Mr. A. P. Watt has now received a sufficient number of names to warrant the commencement of the publication of the Eastern Survey, the results of M. Clermont-Ganneau's Mission and Mr. Chichester Hart's Mission. Intending subscribers to these most important and valuable works are requested to send their names to Mr. Watt (2, Paternoster Square) without delay.

The friends of the Society are earnestly requested to use the "Memoirs of Twenty-one Years' Work" as a means of showing what the work has been, and what remains to be done.

Subscribers are very earnestly asked :—(1) To pay their subscriptions early in the year—say in January. (2) To pay them direct to Coutts and Co. by a banker's order. (3) If they would rather choose their own time, to send up their subscriptions without being reminded. The Clerical Staff of the Society is small; it is most desirable not to increase it; and if these simple requests are attended to a great saving of clerical labour, postage, and stationery is effected. For instance, there are, say, 3,000 subscribers. If every one of these waits to be reminded, and has to have a receipt sent to him, the Society has to spend £25 a year additional in postage, and to write 6,000 letters, merely to ask for and to acknowledge the receipt of the subscriptions.

The following books are now published uniform in size and appearance :—Conder's "Tent Work;" Conder's "Heth and Moab;" Schumacher's "Across the Jordan;" "The Memoirs of Twenty-One Years' Work;" Conder's "Syrian Stone Lore;" Conder's "Altaic Inscriptions;" and Schumacher's "Jaulan."

Subscribers can have the whole set, together with Hull's "Mount Seir," and Names and Places, for 32*s.*, carriage free.

Mr. Armstrong has prepared a list of the photographs belonging to the Society, arranged alphabetically according to those Bible names which are illustrated by views. This list is now ready. Those who wish for a copy may send in their names.

The income of the Society, from March 21st to June 21st, 1888, inclusive, was—from subscriptions and donations, £264 18*s.* 1*d.*; from all sources, £447 5*s.* 5*d.* The expenditure during the same period was £662 7*s.* 11*d.* On June 21st the balance in the Banks was £224 3*s.* 10*d.*

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are:—

(1) *The General Exploration of Palestine.*
(2) *Jerusalem Buried and Recovered.*
(3) *Buried Cities, Egypt and Palestine.*
(4) *Buried Cities of Mesopotamia*, with some account of the Hittites.
(5) *The Moabite Stone and the Pedigree of the English Alphabet.*

Address: Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

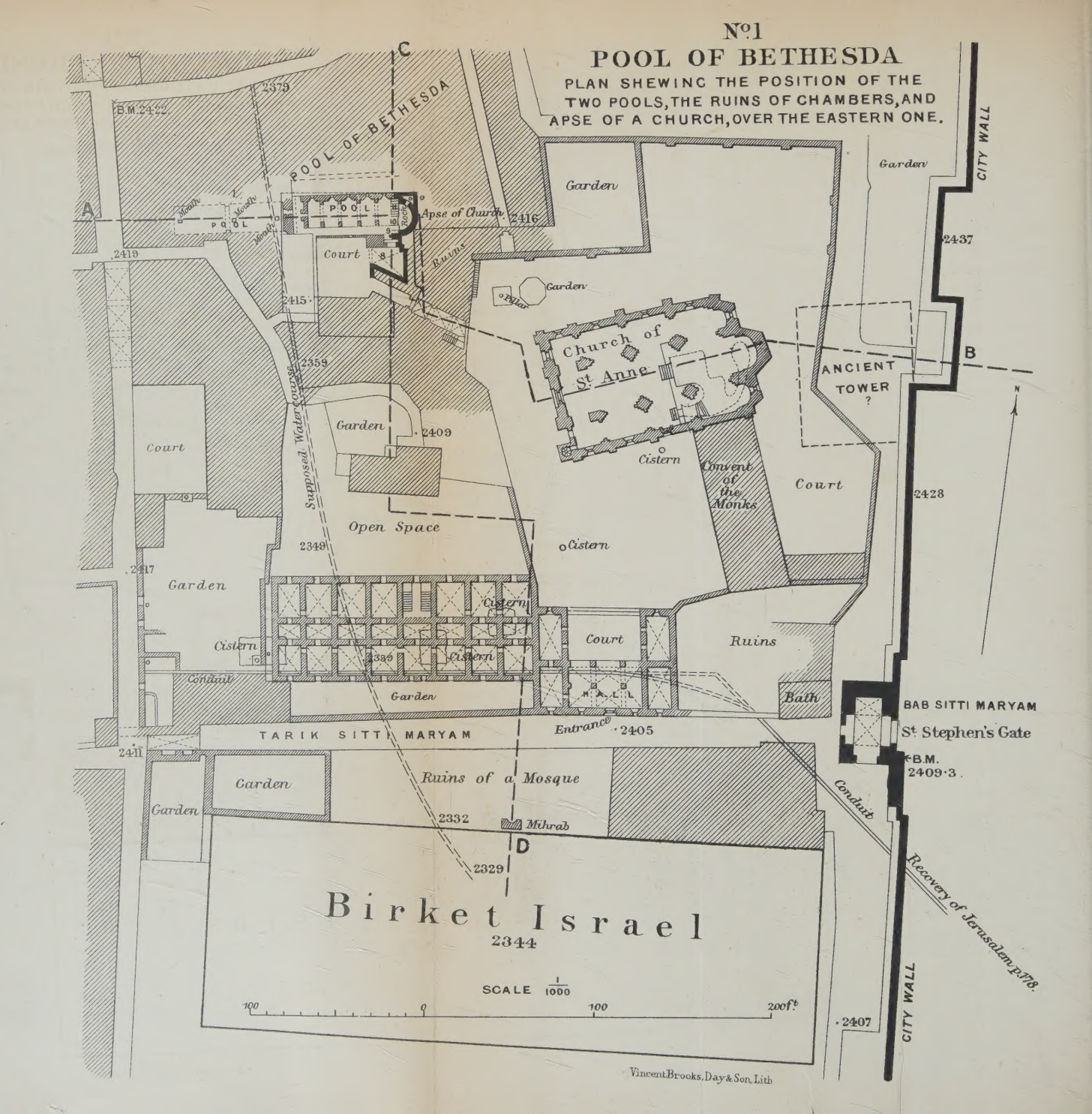
(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects:—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows:—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, Surbiton.


Nº1
POOL OF BETHESDA
PLAN SHEWING THE POSITION OF THE TWO POOLS, THE RUINS OF CHAMBERS, AND APSE OF A CHURCH, OVER THE EASTERN ONE.
POOL OF BETHESDA
B.M. 2422
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CITY WALL
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A
C
Mouth
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POOL
POOL
Roots
Apse of Church
2416
Court
Ruins
2419
Garden
Pillar
2415
Church of St Anne
ANCIENT TOWER ?
B
2359
Supposed Water Course
Garden
2409
Court
Cistern
Convent of the Monks
Court
2428
Open Space
Cistern
2349
2417
Garden
Cistern
Cistern
Court
Ruins
Cistern
2336
Conduit
Garden
HALL
Bath
BAB SITTI MARYAM
St Stephen's Gate
TARIK SITTI MARYAM
Entrance
2405
B.M. 2409·3.
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CITY WALL
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Vincent Brooks, Day & Son, Lith

POOL OF BETHESDA.

I.

Recent Discoveries in Jerusalem.

After the Crimean War in 1854 the Sultan presented to the Emperor Napoleon the ruined Mosque called Salahieh, and other ruins adjoining which are situate near St. Stephen's Gate, and north of the Birket Israil.

This Mosque was originally the church of St. Anne, built in the Romanesque style, with a convent for Nuns. Salah-ed-Din on taking Jerusalem converted it into a Muhammedan school, and it was then subsequently known as "Salahieh," signifying the place or institution of Salah; in the course of time it lost much of its importance and gradually ceased to be a Muhammedan School, but Muhammedan cadets to the present day still attend for instruction by the Roman Catholic Arabic-speaking monks.

The French Government, on taking possession, restored the church, cleared the ground round about, and erected some new buildings and gave them over to the Algerian monks, who speak Arabic, wear white woollen habits—and a red tarbash or Arab cape. They belong to one of the many religious orders of the Roman Catholics, the name of which I do not know. They also established a school for native boys, and have carried it on for a series of years, having now about 30 boarders.

On clearing the place and removing an accumulation of rubbish, several important discoveries were made, one of which was a deep cistern (so-called at the time) with steps leading down into it, but was very seldom shown to strangers or others, the object being to acquire the adjoining property first; this has been accomplished and the cistern or pool is now open to visitors.

I deemed it advisable to make a plan of the whole place, noting on it all what appeared to me to be of interest in an archæological point of view.

No. 1 is a plan of the whole place, with full details given as correctly as I possibly could obtain them. The line of the deepest points of the valley, according to Sir Charles Warren's rock contours, are also shown.

No. 2 is a section from west to east of the more northern part, showing the cistern or pool, the Church of St. Anne, and the city wall, and also the lie of the rock.

No. 3 is also a section from north to south of the western part, showing the cistern or pool and its connections, the elevation of the church, the court, the new building in course of erection, the recovery of the continuation of the conduit, the street called Tarik Sitti Maryam, and the Birket Israil.

The contour or lie of the rock differs in some small degree from that of Sir Charles Warren's.

I have inserted on the two sections drawings of fragments of masonry found on the spot, with scale, &c.

(No. 1). The church, as it now stands, has many irregularities. In the east it is narrower than in the west; the side aisles are different in length, and slightly different in width. The buttresses in the northern wall project much more and stronger than those in the southern wall; the reason for this is difficult to account for. Each of the four buttresses in the western front differ in detail from one another, which is very strange, and this fact is not indicated on any of the plans I have seen.

The church is now surrounded by a paved court, bounded on the north and east by high walls, on the south by houses, and in the west by gardens and walls, and low buildings. (See Sections.) The rock-cut caves under the church are now connected, but formerly were not so. The eastern one resembles the bottle-shaped cistern; the western one, a vault, is the reputed lodging of Joachim and Anne, the parents of the Virgin Mary.

Ancient Tower.

When clearing the place round the church, the architect, Mons. Maux, found this old tower, and cleared away the part projecting into the French property on the east side, and 21 feet 6 inches distant from the church. It was originally 76 feet long from north to south, and 62 feet broad from west to east, extending to the present city wall. Those measurements are approximate to those of the "Tower of David," and also the tower in the north-east corner of the Haram esh Sherîf. The stone material used in this old tower I am unable to describe. From the configuration of the ground it would appear to have stood on the top of the ridge, and very probably on the eastern side of the tower a rock, scarp, or ditch may be found, but without excavating it is quite impossible to say. As to the object of this tower there is no evidence to produce; but I think it cannot date further back than the period of Agrippa, in the first century of the Christian era. There is some probability that the belfry of which Blackburn writes stood on this tower: "Era anesso anche el suo Campanile ma non resta di esso se non il primo ordine," 91 (Tobler, "Top. Jerusalem," Berlin, 1853, page 428), which I think to be the case. If so, the ditch or rock-scarp would be east of the tower, and the same as that of the present town wall.

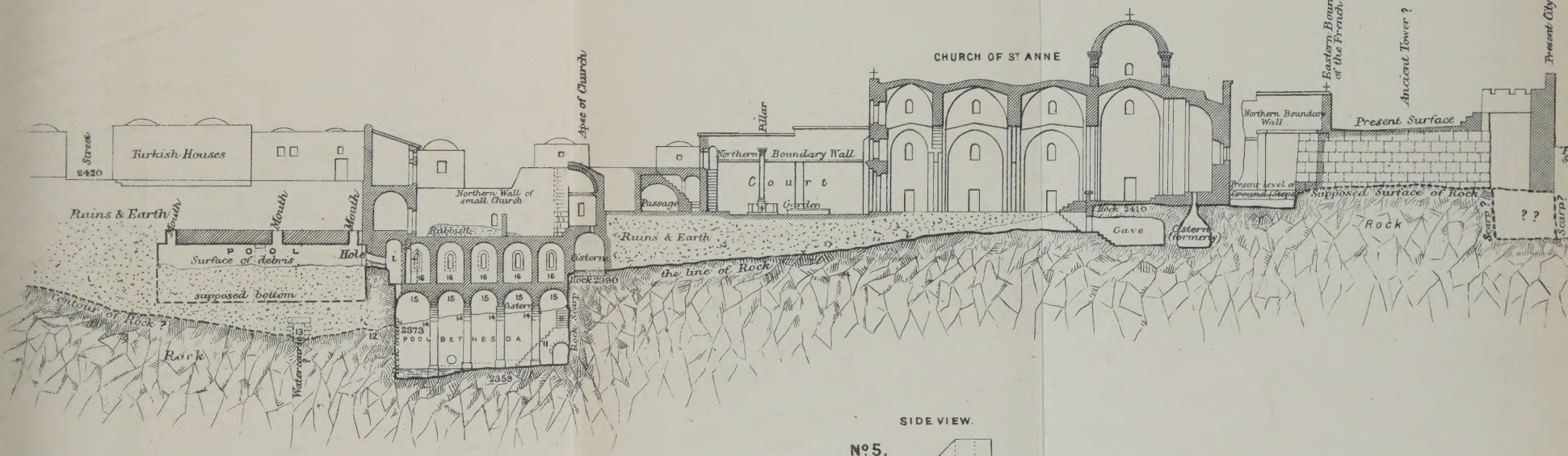
The Pool of Bethesda.

From the court west of the Church of St. Anne, and opposite the north-western angle, is the entrance to a passage, newly opened up, 24 feet in length, which leads into a court of about 50 feet square; the surface is very uneven, consisting of rubbish and ruins, sloping towards the north-west. On the east side of this court is a large arched room, open towards the west, marked 8 on Plan I; it is half full of earth; the masonry is Crusading. The north wall of this chamber is 6 feet 3 inches thick, in which is a wide door and short passage, with two steps leading down to a row of narrow (only 9

POOL OF BETHESDA.

Nº 2.

SECTION A.B. FROM WEST TO EAST.



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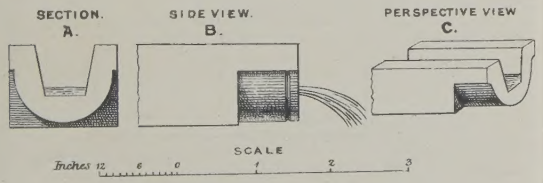

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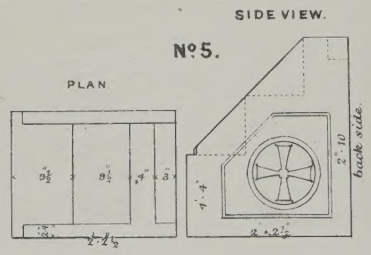
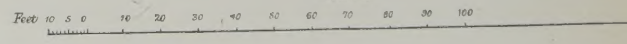


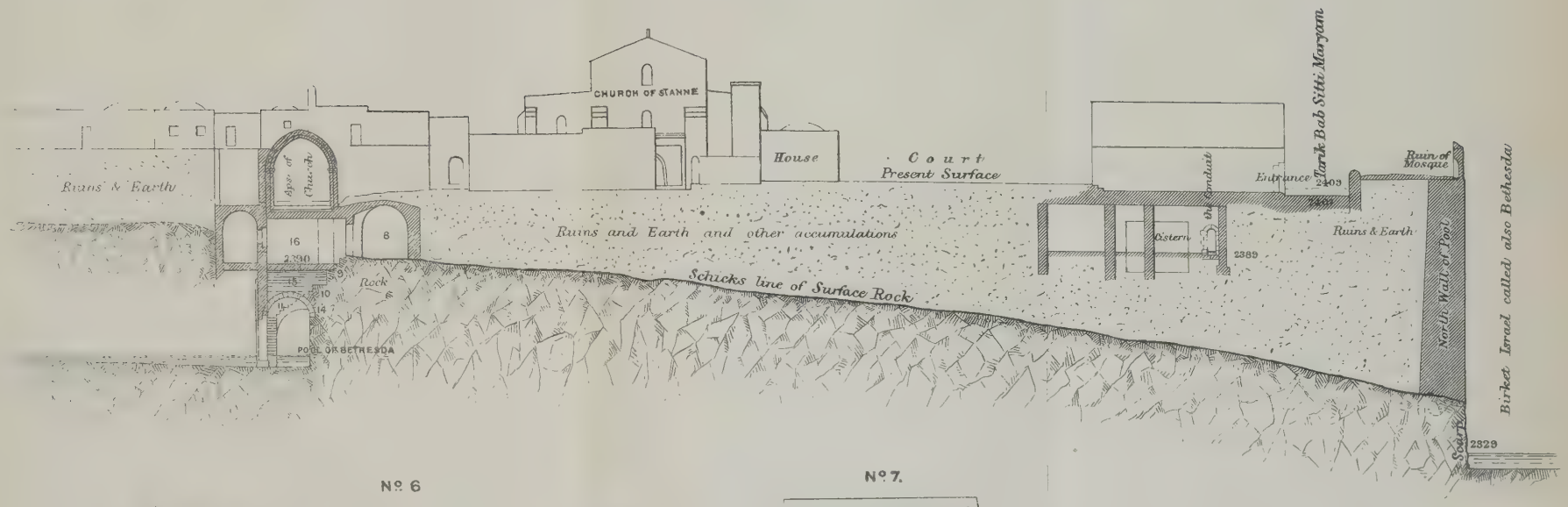


Vincent Brooks, Day & Son lith.

POOL OF BETHESDA.

No 3.

SECTION C. D. FROM NORTH TO SOUTH.



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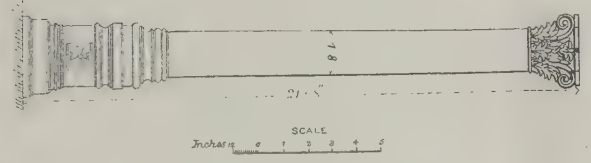

SCALE

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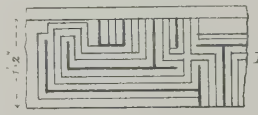

SCALE

SCALE

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Vincent Brooks Day & Son lith

feet wide) rooms ; traces of the eastern two are still visible, the three to the west being buried under rubbish. The monks, in digging along the western end of the court, came upon the wall between the fourth and fifth room, exactly of the same thickness as that between the first and second (the eastern two) ; this is evidence that there were five rooms of equal size, each 9 feet wide and about 14 feet long ; the exact length I could not decide, as there are no traces visible to show the southern ends of the walls. It seems that towards the south the halls or porches were open with a narrow passage in front of them, as indicated in Plan No. 1. The half-circled barrel arches of these vaults or porches were 13 feet in height in the centre ; each vault had an arched window in the northern wall, which seems to prove that they looked into an open street or passage, 11 feet in breadth, but which is now covered by a half-circled barrel arch in its whole length ; the wall in which the windows are is 2 feet 8 inches thick, but the thickness of the one opposite I could not obtain. Now on the top of these vaults a church once stood, the apse of which in the east is to a great extent preserved as indicated in Plan I, and Sections 2 and 3. The church was evidently not large, for, without the apse, only 20 feet wide (inside measurement), and, from an indication in the northern wall, seems to have been only 20 feet long. In the northern wall some stones are seen projecting ; I rather think these did not belong to the western end of the church, but that the church and ante-church extended over all the five vaults, for there is, a little to the west of the stones projecting in the same north wall, a very nicely shaped recess, such as are always found near the altar or font, so I imagine that over the middle porch stood the font, and this outer or ante-church was the baptisterium of that period. When the church was in use the font would be above the centre of the pool below, and the apse over the cistern, on the higher rock, which is 14 feet deep (*see* Section 2). A narrow door on the northern side of the apse leads to a small chamber, in which is the mouth of the cistern (*see* Plan I).

The flooring of the apse has disappeared, and is grown over with grass ; to the north and on higher ground are some Moslem houses, of only one storey high, in a bad state of repair.

Having explained all this, which is visible by day, it is time to light candles and go down below, descending by steps leading to the flooring of the porches; over two high steps (9, Section 3) a wooden ladder is placed, and resting on a flat place marked 10 on Plan I, connecting the head of a flight of steps (marked 11 on Plan and Sections) which lead 19 feet down to a tank, containing, even to-day, some water. The bottom of it is partly uneven and sloping towards the west ; the steps end where the bottom is highest and dry when the water is low.

The west, south, and eastern sides of the tank are cut in the rock to the greater part of its depth, and are perpendicular. The northern side is a wall.

The general level of the bottom at the foot of the stairs is 2,359 feet above the Mediterranean Sea ; the top of rock on west side is about 2,373

feet (could not obtain exact level), the south side is 2,376 feet, rising a little more, and on the east side it rises up to 2,390 feet.

As Sir Charles Warren's contour (marked 12 on Section 2), giving 2,369 feet, passes only about 10 feet west of the tank, and comparing it with the heights of the rock on the other side of the valley, it is clear that the water course is actually about 20 or 25 feet more west, as I have shown in Section 2 (13). Probably, on the eastern slope, there had been originally a cliff or precipice.

The pool is now 55 feet long, but this was most probably the breadth, and 12 feet 6 inches of an average in width ; but, apparently, towards the north it extended much farther, as the present northern wall was subsequently built, for it does not appear to belong to the original work, excepting the round bases of the five piers, which are hewn out of the living rock. These bases are not all of equal height, but about $2\frac{1}{2}$ to 3 feet each above the bottom of the pool, having a diameter of 3 feet 2 inches. On these once stood round pillars, with the exception of one (the second from the west) which is square and walled in, and having a diameter of 3 feet. As regards the height of these pillars we may conclude that they would be about the same elevation as the surrounding rock ; the roofing was probably constructed of long flat stones stretching from pillar to rock, on which perhaps the five porches mentioned in John's Gospel, v, 2, were erected.

The five porches with the roofing and the pillars were destroyed, and on a restoration square piers were built of hewn stones in place of the pillars, and arched across over the tank (14). On top of the tank roof (14) barrel arches (15) were built. Such is my reasoning of the plan of erection with the five porches from the traces (16) that exist at the present day (compare Plan I, Sections 2 and 3). Later on, the openings between the piers were shut up with walls, as the masonry of these walls is not connected with the masonry of the piers.

I was told that there is always some water in the cistern, but the source from where it comes I could not ascertain.

The steps leading down into the pool are not the original ones, they are neither ancient nor modern ; they are built, and the original ones were certainly hewn out in the rock, as we generally find them in cisterns ; they vary in their height and width, and have apparently been several times repaired. There is an iron railing which is quite modern ; besides the two large ones, I counted twenty-four regular steps.

The bearing of the tank below differs slightly with that of the porches above. The bearing of the church of St. Anne is somewhat curious too.

From the examination of the details on the ground now described, I am under the impression that the cistern is the Pool of Bethesda ; at least it was the place which in the Middle Ages was considered to be the Bethesda.

I now append a short history of the Pool of Bethesda :—In the Old Testament the Pool of the Bethesda is not mentioned, but in the New Testament, St. John v, 2, we read, " There is at Jerusalem by the sheep

market, or gate, a pool, which is called in the Hebrew tongue Bethesda, having five porches" (in Neh. iii, 1, "Sheepgate"). The pool was near the Sheepgate; the Sheepgate was north of the Temple, which I believe to have been under the Harem Area, and a little south of Bab el 'Atm, or Hytta; and the pool, now examined for the first time, is north of the Harem Area, and in the neighbourhood where the Christians always thought it to be, though in later times, when it got buried up in ruins and *débris* and lost, the name Bethesda was applied to the Birket Israil. In the 4th century the "Bordeaux Pilgrim" writes: "There are two great pools at the side of the Temple, one on the right and the other on the left, made by Solomon." As it appears he came in by St. Stephen's Gate, and proceeded westwards, he would have Birket Israil on the left, and the one now discovered and examined on the right, near the church of St. Anne. Continuing along the street, he came to the "twin pools," which are outside the north-west corner of the Harem Area and under the new convent of the Sisters of Zion, and calls them Bethsaida = Bethesda, and mentions the five porches and the sick that were healed there; also notes the red colour of the water—and so does Eusebius—"that in one it was red, and the other it was rain water." But, as both pools, under the "Sisters of Zion," are so closely connected, the water in them both must have been always of the same colour—rain water, coming from a distance over the surface of the ground, is at the moment always red. If in the 4th century the "twin pools" were wrongly called Bethesda, the name later on was transferred to the one (the real Bethesda) now recovered, and which the Bordeaux pilgrim says was on the right hand. After the church of St. Anne and the convent were built the proper name was then renewed to the pool, which has since always been stated to be near to the church of St. Anne. Williams, in "The Holy City," p. 484, came to the same conclusion, that the lost pool (Bethesda) would be found near the church of St. Anne.

The pilgrims, in their accounts of Jerusalem, generally describe the pool with the five porches over it as being near the church of St. Anne. In later times, when the situation of the pool was lost, and spoken of as having two porches, the name was transferred to the Birket Israil, which is also near the church of St. Anne.

Gumpenberg, in the 15th century, notes that there were twenty-three steps leading down to the water, which can only be applicable to the one now recovered, which has twenty-four steps to the bottom; but very possibly in Gumpenberg's time the water was a foot higher. Tschudi gives thirty-three, but the two large steps over which is now placed a wooden ladder would make ten regular steps, which would account for the thirty-three. The Birket Israil would want at least seventy steps.

"The Holy City," by Williams, I do not possess a copy of, but I know he states that the natives speak of underground springs and large tanks in the neighbourhood of the church of St. Anne.

In closing this report I only wish to add that the Birket el Hedjeh, outside the city wall and east of Bab es Sahire (Herod's Gate), is only 700

feet north of the pool and in the same depression of ground, and may have been connected.

If the Bethesda extended farther north and under the present houses, the distance between the two would not be very great—about the same as that to the Birket Israil. I am convinced that we have in this pool, which has lately been discovered, the Bethesda of the mediæval times, and would hail with delight any notes from the Pilgrims and others appended to clear up and confirm the matter.

C. Schick.

Jerusalem, *5th April*, 1888.

II.

Some weeks ago I forwarded a plan and sections of the quarter in Jerusalem called "Salahieh," showing the newly discovered pool with traces of five porches or chambers over it. Since then further excavations have revealed another cistern or pool.

In order to understand what I have now to say, I enclose three small plans which, when put together, show the three storeys, the second pool, and the one already reported on; also a section.

The plans are marked A, B, C, D.

A.—When I revisited the place again I found that I had made some mistake in laying down on the plan the direction of the tank from the bearing I had taken, which is now corrected as shown.

B.—Is a plan of the probable, or what I suggest, five porches or chambers, the remains of the two eastern ones being covered up, and also the western one, the arches being all broken down. The walls between the chambers were apparently not entire, but partly arched, and communicating one with the other.

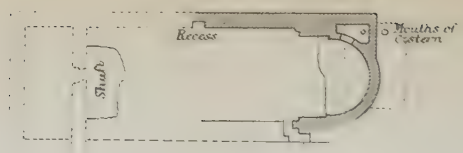
In digging through the western one, which is full of earth, and the arch fallen in, a rather low arch was found on its western side, belonging to a more recent period, evidently erected for the support of the present wall of the chamber over it. In the latter wall was found an opening, or doorway—a view of which I give on Plan E. This doorway was well made, and in front of it (west) was formerly an open passage (*i*). Another and wider passage came from the east, into which the windows of the porches or chambers opened, but both are now covered up. There may possibly have been a similar passage from the west, a continuation of *l*, *k*, but no indications of it were found. The masonry marked *a*, *b*, is apparently of the same period as the apse of the little church already mentioned.

The passage marked (*i*) is peculiar from its having a rock-scarp at its southern end, which surprised me very much to find, the rock rising to such a height. Consequently the rock is much higher than I at first observed (Section 2).

It seems that the shoulder wall on the west side is also rock, as shown in Plan B and Section 2. Behind the rock wall or scarp is a very thick wall built of small stones; a hole, see Plan B and Section 2, was made

PLAN OF THE CHURCH.

C.

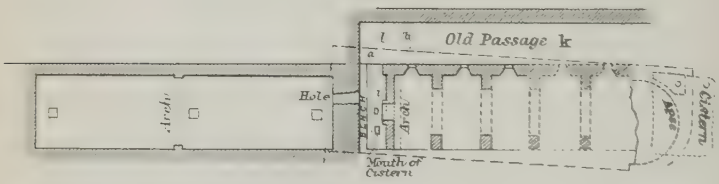


Shaded portions Crusading

PLAN OF

THE PROBABLE 5 CHAMBERS & WESTERN POOL.

B.



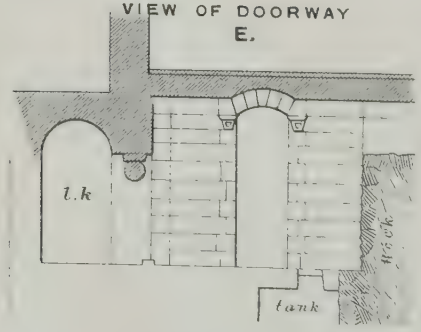
PLAN OF THE TWO POOLS

A.

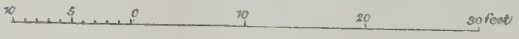
SCALE $\frac{1}{500}$

VIEW OF DOORWAY

E.



SCALE $\frac{1}{1000}$



Vincent Brooks Day & Son lith

in this wall, and a labourer from the village of Selwan crept in to see what was behind. He returned very quickly and died soon after, either from fright (he said that he had seen a large serpent) or from the impure air.

When I heard of this I immediately went to the place, and examined and measured the hollow or tank, but observed no serpent or anything strange, and found it to be an arched tank or cistern, tunnel-shaped, about 16 feet 6 inches wide. I could not measure it exactly at the springing of the arch, as there is so much earth. The length, from the thick wall westwards, I ascertained to be 64 feet, and about the middle of it is a special arch or girder built of hewn stones, on which the wall of small stones rests.

This second pool or cistern has three mouths—one in the centre, near the special arch, and the other two near the end walls.

I could not obtain the correct bearing or direction of the side walls, but they appeared to be running in the same line as those of the five chambers or porches, apparently of the same depth (probably deeper) and width.

On the flooring of the passage (*i*) south of the doorway is a small mouth to the pool below.

On the north end of the passage (*i*) is a badly built-up door, the lintel being a pillar, leading to a little room (*l*) of no special interest, but it was formerly part of the passage (*k*).

The size of the cistern east of the five porches or chambers, and under the apse, I have not ascertained, but think that it must extend as I have shown it on plan in a dotted line.

It has two mouths, one in the little side chamber of the apse of the church, and the other to the east of it, in the courtyard of a Moslem house.

C.—Is a plan of the little church over the vaults, &c., and the position of the shaft which the monks sank for their excavations, and which I have explained were found.

D.—Is a part of Section 2, already submitted, showing the corrections, the second tank or pool, and the passage (*i*) with the well-made doorway. The wall in which it stands is only 1 foot 9 inches thick, and has, 11 feet from the flooring, two nicely-carved corbel stones projecting about 1 foot; the wall above then becomes thicker. The passage (*i*) was formerly open, and on its flooring is a mouth to the tank or pool underneath, and it seems that the bottom here consists of rock or, it may be, very large flat stones, similar to the "pavement" described in the *Quarterly Statement*. The south wall seems to consist of rock, rising to a considerable height, as shown in Section 2, similar to the lower part of the tank wall, then forming a kind of bench 1 foot 8 inches broad, as shown in B. Behind is the 6-foot thick wall through which the hole was broken.[1]

[1] All embodied in Section 2 and Plan B.

E.—A view of the well-made door with projecting corbels.

In conclusion, I wish to state that further examinations will bring more details to light, consequently some of my suggestions or explanations may be wrong. However, I record what I have seen, and submit it for consideration.

May 9th, 1888. C. SCHICK.

III.

From the "Bordeaux Pilgrim" (Appendix III), published for the Palestine Pilgrims' Text Society.

THE questions connected with the Pool of Bethesda are of so much general interest that it has been considered desirable to treat them at some length.

The Name.—(1) In the Authorised Version (John v, 2) the pool is said to have been called in Hebrew Bethesda (Βηθεσδά), as if "house (place) of mercy," or perhaps, as suggested by Reland (856), the "place of the pouring forth" of water.[1] This reading is supported by the high authority of the best known Syriac text, the Peshito; it has also respectable support in MSS. and Versions, and internal evidence pleads strongly for it. The complete absence of any allusion in non-Christian writers to such a pool makes it very likely that its name is an invention of the Evangelist, and, if so, Bethesda was the one likely name for him to choose (Späth. "Protestn. Bibel ad Joann.," v, 2). The weight of MS. authority is, however, undoubtedly against the reading Bethesda; and the Revised Version gives, in the margin, the alternative readings Bethsaida and Bethzatha.

(2) The reading Bethsaida (Βηθσαιδα), "a fishing place," is supported by the Vatican and Vulgate texts, and by the Syriac Version revised by Thomas of Harkel (616 A.D.); it is also the form used by the Pilgrim of Bordeaux. This name, however, which might naturally be given to a town on the shore of the Sea of Galilee, is scarcely applicable to an open reservoir crowded with bathers.

(3) The reading Bethzatha (Βηθζαθά), "place of olives," is supported by the high authority of the Sinaitic text, and it is the form used by Eusebius in the "Onomasticon" (*s. v.* Βηζαθά), where a θ has dropped out. The Belzetha (Βελζεθα) of the Cod. Bez. is also a corruption of the same word.

(4) The name Bezetha (Βεζεθα), by which Josephus distinguishes the hill north of the Temple, is merely a different form of Bethzatha (Βηθζαθά);[2] and it may be suggested as possible that the pool derived

[1] With this may be compared the Arabic *Beit el Ma*, "place of water"—a name applied to springs near Antioch, and at *Nâblus*.

[2] In the LXX we occasionally meet with Beth (Βεθ) instead of Βαιθ, or Βηθ, as in Βεθγεδώρ (Vat.), 1 Chron. ii, 51; Βεθσούρ (Alex.), Josh. xv, 58, etc. The θ also sometimes disappears, as in Βαιφαλάθ (Vat.), Josh. xv, 27, and Βαιμών (Vat.), Jer. xlviii, 23; and in Syriac and Chaldee the final "th" may be and is

its name from the hill, and was known as the "Pool of Bethzatha" (Bezetha). In connection with this suggestion it may be remarked that the "Pool of Siloam" is supposed to have been so named from the rock-hewn channel which conveyed to it the waters of the Fountain of the Virgin.

(5) In John v, 2 (R.V.), the Pool of Bethesda is said to have been "by the sheep-*gate*," where the word "gate" is supplied. Eusebius, however, in the "Onomasticon," calls Bethesda "the sheep-pool," and all other writers follow him. Chrysostom, quoting John v, 2, reads προβατικὴ κολυμβήθρα, "sheep-pool;" and this agrees with the reading of the Sinaitic Version, as well as with that of the Vulgate, "probatica piscina." See also Athan., Cyril, &c., as quoted below.

Notices in Early Writers.—"Now there is in Jerusalem by the sheep-*gate* a pool, which is called in Hebrew Bethesda, having five porches (στοαὶ). In these lay a multitude of them that were sick, blind, halt, withered. [Waiting for the moving of the water, for an angel of the Lord went down at certain seasons into the pool, and troubled the water: whosoever then first after the troubling of the water stepped in was made whole, with whatsoever disease he was holden.[1]] And a certain man was there . . . I have no man, when the water is troubled, to put me into the pool."—John v, 2–7 (R.V.).

Bethesda, "a pool (κολυμβήθρα) in Jerusalem, which is the sheep-*pool*, formerly having five porches. It is now identified with the twin pools (ἐν ταῖς λίμναις διδύμοις), of which one is supplied by the periodic rains, whilst the water of the other is of a ruddy colour—a trace, they say, *of the carcases* of the sacrifices[2] which were formerly cleansed in it *before offering*, whence also it was called προβατικὴ, 'sheep-*pool*.'"—Euseb., "Onom." (*s. v.* Βηζαθὰ); 330 A.D.

"There was at Jerusalem a sheep-pool, which is still in existence; it had five porches (στοαὶ), but the structures surrounding it are now destroyed."—Athanasius (?), "De Semente;" Migne, xxviii, 164; 320 A.D. (?).

"Further in the city are twin pools (*piscinæ gemellares*), with five porticoes, which are called Bethsaida. There persons who have been sick for many years are cured; the pools contain water which is red when it is disturbed."—"Itin. Hieros.;" 333 A.D.

"The sheep-pool (προβατικὴ κολυμβήθρα) was in Jerusalem; it had five porches (στοαὶ), four surrounding it and one in the middle" (τέσσαρας μὲν περιτρεχούσας, μέσην δὲ τὴν πέμπτην).—Cyril of Jerus., "Hom. in Par.," § 2; Migne, xxxiii, 1133; 370 A.D.

"There is in Jerusalem a sheep-pool (προβ. κολ.) . . .," John v, 2, as quoted by Chrysostom, "In Joan.;" Migne, lix, 203. This reading agrees with the Sinaitic Version and the Vulgate.

dropped. No importance therefore attaches to the substitution of ε for η, or to the disappearance of the θ; and, so far as reasons of language go, Βεζεθά, Βηζαθά, Βηθζαθά, etc., may be different forms of the same word.

[1] In the margin only.

[2] Lit., of the "victims."

Jerome ("Onom.") agrees with Eusebius as quoted above ; 420 A.D.

"The pool which was once called sheep-*pool*."—Cyril Alex., "In Joan.," lib. 12 ; Migne, lxxiv, 636 ; 430 A.D.

"Bethesda is visible and remarkable by its double pool (*gemino lacu*) ; the one is commonly filled by the winter showers, the other is distinguished by its red waters."—Eucherius, "De Loc. Sanct. ;" 440 A.D.

"From the house of Pilate to the sheep-pool (*piscina probatica*) is more or less one hundred paces. There Christ cured the paralytic, whose bed is still there. Near the sheep-pool (or 'in the sheep-pool' according to some MSS.), where the sick wash and are healed, is a church of the Blessed Virgin."—Theod., "De Terr. Sanct.," viii ; 530 A.D.

"Returning to the city (from Aceldama), we came to a swimming-pool (*piscina natatoria*) which has five porticoes, and in one of them is the Basilica of St. Mary, in which many miracles are wrought. The pool itself is now choked with filth, and therein are washed all the necessary utensils of the city. We saw in a dark corner an iron chain with which the unhappy Judas hanged himself."—"Ant. Mart.," xxvii ; 570 A.D.

"I enter the holy Probatica (*προβατικὴ ἁγίη*), where the illustrious Anna brought forth Mary."—Sophr. ; "Anac.," xx ; Migne, lxxxvii, 3, p. 3821. In the same place the paralytic was cured, *l. c.*, p. 3823 ; 630 A.D.

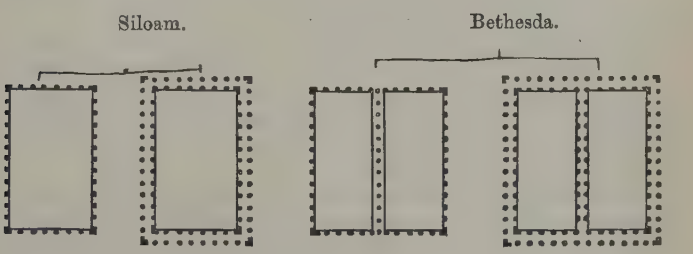
"Unto us is born, in the holy Probatica (*ἐν ἁγιᾷ προβατικῇ*), the mother of God," etc.—Joan. Dam., "In nat. B. V. Mar. ;" Migne, xcvi, 669. See also the curious apostrophe to the Probatica (*l. c.*, p. 677) and "De Fide Orth.," lib. iv ; Migne, xciv, 1,157 ; 730 A.D.

From the church of St. Sion, in the middle of Jerusalem, Willibald went "to the porch of Solomon, where is the pool where the infirm wait for the motion of the water, when the angel comes to move it ; and then he who first enters it is healed. Here Our Lord said to the paralytic, 'Rise, take up thy bed and walk.'"—Will., "Hod." xix ; 726 A.D.

A church of St. Mary, in the Probatica, where she was born ("Commem.," circ. 808 A.D.). The tract, "Qualiter sita est Civ. Jerusalem," supposed to have been written before the First Crusade, places the sheep-pool east of the *templum Domini* (Dome of the Rock), and outside the gate of the Atrium, which appears to have been conterminous with the Haram Area.

Nature of the Pool.—The Greek word *κολυμβήθρα*, "a swimming bath," translated "pool" in John v, 2, is used in John ix, 7–11, for the "pool" of Siloam, and in Josephus for the pools Struthion and Amygdalon ("B. J.," v, 11, § 4) and the pool of Solomon ("B. J.," v, 4, § 2) ; its equivalent in Latin is *Piscina*. These swimming baths, pools, or reservoirs were, as a rule, rectangular in form, and open to the air ; and they were often surrounded by columns or by porticoes (*στοαὶ*), in which the bathers undressed themselves and lounged before or after bathing. Siloam is said by the Bordeaux Pilgrim to have had four such porticoes, and remains of them have been found by excavation at the modern pool of that name. The Roman bath (*piscina*) at Bath seems to have had similar porticoes, and its appearance when perfect must have been not unlike that of the

Pool of Siloam. Bethesda had five porches, or porticoes, and much ingenuity has been expended on their arrangement. The explanation is very simple when it is remembered that Bethesda was a *double* pool; there was a portico on each of the four sides, and the fifth, as stated by Cyril of Jerusalem, was in the middle, between the two pools. It may be inferred from this arrangement that the twin pools were on the same level, close to each other, and not of any very great size. The porticoes of the pools of Siloam and Bethesda may have been on some such plan as those suggested below:



Position of Bethesda.—The Bible narrative indicates that Bethesda was in Jerusalem, and that it was an open reservoir having five porticoes. In the fourth century Eusebius, who gives no indication of position, speaks of the porticoes as having formerly existed; and the tract "De Semente" expressly states that they had been destroyed. Eusebius, moreover, says that the κολυμβήθρα was then identified with the twin λίμναι, as if some change had taken place in the character of the reservoir; and it may be remarked that Eucherius uses the word *lacus* instead of the usual *piscina*. The Bordeaux Pilgrim tells us that Bethesda was more within the city than two large pools at the side of (in the vicinity of) the Temple, which have generally been identified with the Birket Israil and the pool that formerly existed near the church of St. Anne. In the sixth century Theodosius says that the pool was about 100 paces from the house of Pilate, which he and Antoninus identify with a church of St. Sophia, apparently not far from, if it be not the same as, the "Dome of the Rock."

The general tenor of these accounts seems to indicate that Bethesda was identical with the twin pools now known as the "Souterrains" of the Convent of the Sisters of Sion. We have here two pools cut in the rock, side by side, with a partition 5 feet wide between them, and covered by vaults. The total length is 165 feet, and the breadth 48 feet, and a never-failing supply of water enters at the north-west corner. The pools are peculiarly situated in what must have been the rock-hewn ditch between Bezetha and the fortress of Antonia, and this may have led to the name "Pool of Bezetha or Bethzatha," as suggested above; their position with regard to the Temple would also have been convenient

for washing the "victims" offered on the altar.[1] The source from which the pools derived their supply of water is unknown, but an aqueduct has been found running into the western pool from the north; and there may also have been one of those "drifts" or rock-hewn tunnels for the collection of water, of which there is an example in the Wâdy Biyar, near Solomon's Pools. Water running into the pool from such a drift would naturally carry with it and deposit some of the red earth of which the soil north of Jerusalem is composed, and this, when disturbed, would produce the ruddy colour noticed by Eusebius and the Bordeaux Pilgrim. With regard to the movement of the water, which appears to have taken place at uncertain intervals, it is now generally accepted that the passage attributing the disturbance to the intervention of an angel is spurious; we know nothing of the times and circumstances under which the movement occurred, and can only suggest that it may have been caused by an intermittent flow of water from the aqueduct or "drift." During the rainy season, and for some time afterwards, there would be nothing unusual in such an intermittent flow.

Mons. Clermont-Ganneau[2] has identified these souterrains with the Pool Struthion of Josephus, at the side of which Titus erected one of his mounds against the fortress Antonia; and he explains the meaning of the name Struthion to be "the sparrow's pool," that is to say, the little pool, by a sort of popular *sobriquet*. It seems, however, more probable that in this case the word Struthion means "soapwort," and that the name "Soapwort Pool" was connected with the plant used for cleansing the wool of the sheep used in the sacrifices. There would thus seem to be a connection between the "Soapwort Pool," the "Sheep Pool," and Bethesda, and they were possibly different names for the same pool.

The history of the pool appears to have been somewhat as follows: When Titus erected his mound against Antonia the porticoes were destroyed; and on the rebuilding of Jerusalem, as Ælia Capitolina, the open pool (κολυμβήθρα) was transformed into a closed reservoir (λίμνη). The pool gradually became choked with filth, and at some period prior to the Crusades the site of Bethesda was transferred to the pool near the church of St. Anne. The general aspect of the pool before the destruction of the porticoes is indicated in the subjoined sketch, for which I am indebted to Captain Conder, R.E.[4]

The Pool of Bethesda, or *Piscina Probatica*, is now identified with the Birket Israil, but this identification does not appear in any writer

[1] The lambs for the daily sacrifice were kept in one of the chambers of Beth Mokadh at the north-west corner of the Temple court.—Lightfoot, "Prospect," xxix.

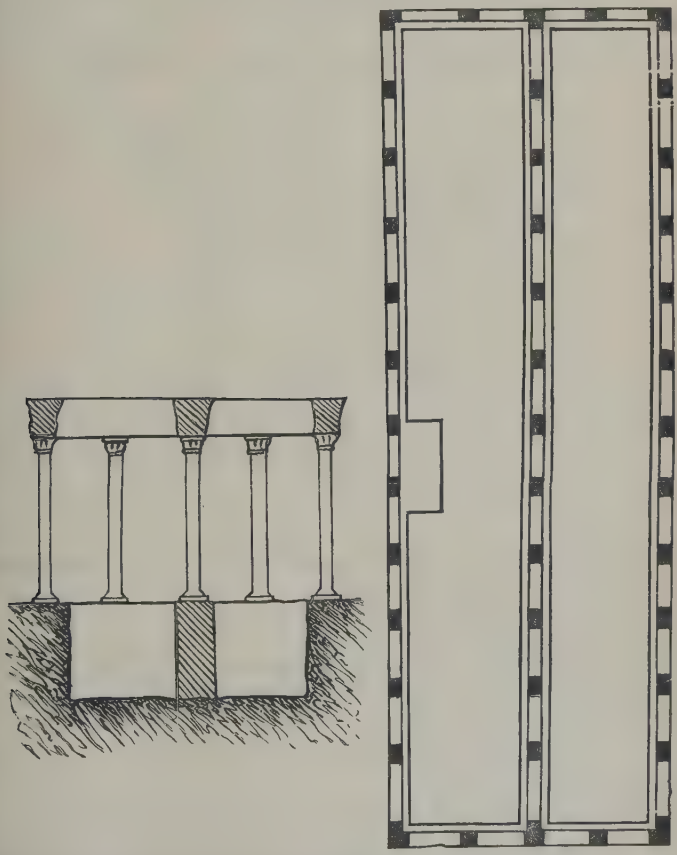
[2] See P.F. *Q.S.*, 1872, pp. 47-51; and, for a description of the souterrains, "P. F. Mem.: Jerusalem," pp. 209-212.

[3] P.F. *Q.S.*, 1871, 106.

[4] It is quite possible that the whole extent of the pool has not yet been discovered, and that it may have had a greater width than is shown on the plan.

before Brocardus (1283 A.D.). The earlier historians of the Crusades applied the name *Piscina Probatica* to a large reservoir adjacent to the church of St. Anne, which is now completely covered up and lost. This pool and the Birket Israil are generally supposed to be the two large pools alluded to by the Bordeaux Pilgrim as being near the Temple (*ad latus templi*) ; and William of Tyre (viii, 4) states that their water

SIR C. WILSON'S PROPOSED RESTORATION OF THE TRADITIONAL POOL OF BETHESDA.



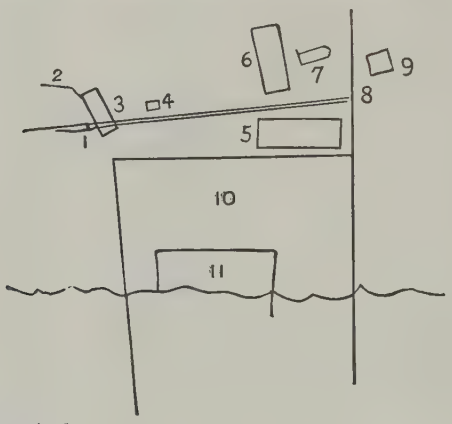
supply was brought by aqueducts from without the city. The Birket

[1] In the "Citez de Jerusalem" a spring is mentioned in front of St. Anne ; Brocardus and others allude to water in the upper pool; and Sandys saw water, which must have come down the valley, trickling through the north wall of the

Israil is situated near the mouth of the valley which runs into the Kedron, south of St. Stephen's Gate ; the other pool is higher up the same valley, and must therefore be at a higher level ; it is clear, then, that no arrangement of five porches, such as that described above, could have existed, and that these pools cannot represent the Bethesda of Eusebius and the Bordeaux Pilgrim.

Dr. Robinson's suggestion that Bethesda may have been at the Virgin's Fountain in the Kedron Valley is hardly tenable, for there is no trace or tradition of anything that could be called a κολυμβήθρα in that locality.[1]

Sketch showing Position of Pools north of the Haram Area.



1. Ecce Homo Arch.
2. Aqueduct.
3. Souterrains at the Convent of the Sisters of Sion ; Struthion of Josephus ; Bethesda of fourth century.
4. Church of the Flagellation.
5. Birket Israil ; the modern Bethesda.
6. Supposed position of the mediæval Bethesda.

5 and 6. The two large pools of the Bordeaux Pilgrim.

7. Church of St. Anne.
8. St. Stephen's Gate, or Gate of the Lady Mary.
9. Pool of the Lady Mary.
10. Haram Area.
11. Platform of the Dome of the Rock.

Birket Israil. The source from which this water came is an interesting subject for speculation ; it was probably to the north of the city, and the same as that which supplied the souterrains at the Convent of the Sisters of Sion, and the reservoir at the Church of the Flagellation.

[1] It may be remarked that the Jews, at the present day, bathe in the Virgin's fountain when the water rises, as a cure for rheumatism.

Church of St. Mary.—Before leaving the Pool of Bethesda a few words seem necessary on the curious tradition which places the birthplace of the Virgin in close proximity to the pool, or, according to some writers, in one of its porticoes. The earliest notice of this tradition is in Theodosius, 530 A.D., and it is scarcely necessary to add that it rests on no foundation. The legend appears to have originated in that desire to localize all the events of the Virgin's life (*e.g.*, her death in the "Mother Church of all Churches" on Sion) which grew up in the fifth century after the Council of Ephesus; and we should probably not be far wrong in attributing it to Juvenal of Jerusalem. The modern Church of the Flagellation apparently occupies the site of the original Church of St. Mary; and when Bethesda was transferred to the pool near the Church of St. Anne the birthplace of the Virgin was found in the grotto beneath that church.

It is perhaps worthy of remark that the Arab name of the Church of St. Anne is *Beit hanna*, "House of Anne," an expression which is exactly identical with Bethesda, both signifying "House of Mercy." The Mary legend has also left traces in the Arab nomenclature of this portion of the city; as *Bab Sitti Maryam*, "Gate of the Lady Mary" (St. Stephen's Gate), and *Birket Sitti Maryam*, "Pool of the Lady Mary," outside the walls.

C. W. Wilson.

N.B.—The recent recovery of a portion of the mediæval Pool of Bethesda in the immediate vicinity of the Church of St. Anne, and the probable existence of a second pool beside it, is in favour of the view that the Pool of Bethesda, of Eusebius, was in this locality. Some other explanation must, however, be found in that case for the description of the Bordeaux Pilgrim, which I have supposed to refer to the twin pools beneath the Convent of the Sisters of Sion.—C.W.W.

IV.

A new discovery of great interest has just been reported by Herr K. Schick, namely, that of a large tank to the north-west of St. Anne's Church, about 100 feet distant. Crossing a courtyard and entering by a narrow passage, a building, measuring about 70 feet east and west, by 25 north and south, with an apse at the east end, is found. Its floor (about on the level 2,400) is some 7 feet below the general surface of the courtyard. Under this building are vaults about 10 feet deep, the floor level being that of the surface of the natural rock. Through the floor of these vaults a cistern is reached, cut in rock to a depth of 30 feet. It lies under the line of the building (apparently a church) with an apse, abovementioned. Its measurement east and west from one rock wall to another is 55 feet; north and south it measures $12\frac{1}{2}$ feet, but the north wall is of masonry, with four piers standing on rock bases supporting arches; the spaces between the piers have been filled in with masonry

after building, probably at a later period; and Mr. Schick supposes the pool to have extended further in this direction, perhaps in five arcades or porches between the piers. A flight of twenty-four steps leads down into this pool from the east scarp.

The church or chapel was probably built at a later period, when the surface level was within 6 or 7 feet of its present height, after an accumulation of 10 feet of earth over the rock, which, as we shall see, seems to have been still visible in 1172 A.D. This is also indicated by the position of the walls over the pool. The vaults from the rock surface were no doubt constructed to bear the floor of the new church.

In a note on the Pool of Bethesda (*see* "Bordeaux Pilgrim," P. P. T. edition, p. 54) Sir Charles Wilson has indicated (No. 6 of the diagram) the position of the mediæval Pool of Bethesda just where the newly-discovered pool exists. He has also shown that the Bethesda of the fourth century A.D. was at the Twin Pools (No. 3 of his diagram), at the north-west angle of the Haram.

In an ancient map of Mediæval Jerusalem, published with Marino Sanuto's account of the city (1322 A.D.), a pool is marked north-west of St. Anne, and shown running east and west, or across the valley which here exists. The pool is that mentioned by Ernoul, in 1220 A.D., as the site of Bethesda, though in the second part the author inclines to the later identification of Bethesda with the Birket Israil — the modern Bethesda.

The following notices of the pools are of value in connection with the new discovery:

The Bordeaux Pilgrim (333 A.D.) speaks of two large pools near the Temple—one on the right, the other on the left—in addition to the Twin Pools which he identifies with Bethesda. He ascribes these two pools to Solomon (*see* P. P. T. edition of this pilgrim, p. 20).

In the Onomasticon (Eusebius and Jerome, 330–420 A.D.) Bethesda is said to have "formerly" had five porches, "but now is shown as a Twin Pool."

Theodosius (530 A.D.) places the Probatica Piscina (*i.e.*, Bethesda) near a Church of St. Mary. In 570 A.D. Antoninus Martyr (xxviii) apparently alludes to the Twin Pools as Bethesda. St. Willibald, in 723 A.D., only alludes to the "Porch of Solomon, where is the pool where the infirm wait for the moving of the water."

In the Middle Ages, however, the pool near St. Anne—perhaps, like the Bîr Eyûb, rediscovered and cleared by the Franks—becomes more important. Sæwulf in 1102 speaks of the Church of St. Anne, and "near it Bethsaida (*sic*), having five porches."

John of Würzburg writes, "in exitu ejusdem ecclesiæ ad dextram manum non longe per diverticulum est Probatica Piscina," clearly describing the newly-discovered pool. In 1172 Theodoricus speaks of the Church of St. Anne: "ad cujus aquilonalem partem qui progreditur, in valle profunda, juxta lapidosam quendam collem cui vetus quoddam opus

incumbit, Piscinam Probaticam inveniet." The mention of an adjacent "stony hill" with "remains of ancient work" and a "deep valley" shows that the accumulation of earth over the rock, which led to the site of the pool being lost, had probably not yet taken place.

We have also the two notes in the "Citez de Jherusalem," where first we find notice of the church over the fountain—written about half a century after Theodoricus.

William of Tyre, ch. 1 (*see* Bongar's "Gesta Dei," p. 473), says of this pool: "Veteris piscina adhuc vestigia retinens quinque porticus habens . . . ad quam nunc per porticam unam descenditur et reperitur aqua ibi gustu amara." Hence in his time (about 1180) the pool had already its present form, and was supposed to be only in part accessible—one out of five porches being open. The bitter water here noticed agrees with Mr. Schick's view, that the channel found near the pool and leading to the Birket Isrâîl was a drain. William of Tyre places Bethesda at the newly-found pool, and mentions the Birket Isrâîl as *Lacus quidam.*

In 1283 Brocadus, however, places the Probatica Piscina south of the road to the east gate of the city (*i.e.*, at the Birket Isrâîl); and north of that road he mentions "a very large pool," which he says Hezekiah made, and which he calls Piscina Interior, or the "inner pool." This becomes the recognised name of the St. Anne Pool, after the change of situation of Bethesda to its modern traditional site.

John Poloner (1422) speaks of the "Piscina Interior quæ est ad S. Annam," and Marino Sanuto (1322) notices the pool by the same name as being near St. Anne. In the "Travels of Sir J. Maundeville" (*see* Bohn's series, "Early Travels in Palestine," p. 172) we read that *in* the Church of St. Anne "is a well in manner of a cistern, which is called Probatica Piscina, and which hath five entrances." Even as late as 1509 Anselm says that not far from St. Anne, towards the House of Pilate (Ecce Homo Arch), is a very large pool.

From these notices we gather the history of the pool. It apparently existed in 333 A.D., and, being rock-cut, may be one of the ancient pools of Jerusalem. Josephus, however, only mentions one pool (Struthion) in this quarter of the city (5 Wars, xi, 4), which appears to have been that known as the Twin Pool "at Antonia."

We gather also from the passages cited that the church over the pool existed in the Crusading period, but probably not earlier, and that the present north wall of the pool existed already about 1180 A.D. In the twelfth century the pool was regarded as the Bethesda (or Bethzatha or Bethsaida) of the Gospel (John v, 2), and called the Probatica Piscina or "Sheep Pool;" but about 1230 A.D. (the time of the second Frankish occupation) the Birket Isrâîl begins to be regarded as Bethesda, although the Piscina Interior was known and occasionally called the "Sheep Pool" down to 1500 A.D.

It may here be noted as of some interest that Marino Sanuto gives an account of Hezekiah's alterations in the water supply of Jerusalem. He

regards the Piscina Interior as the "Upper Gihon," and apparently thought that originally an aqueduct ran from Birket Mamilla (west of the city) across to the Piscina Interior, but that Hezekiah diverted the water "west of the Tower of David" to the Lacus Germani (Birket es Sultân). The Birket Mamilla is connected by aqueduct with the citadel (near the Jaffa Gate), and its level is about 110 feet above that of the Piscina Interior.

Whether any of these pools can claim to be the true Bethesda is doubtful. The word in Hebrew, according to Reland, means (בית אשרא) "house of pouring forth" (*see* Sir C. Wilson's note in "Bordeaux Pilgrim," P. P. T. edition, p. 45; and compare Ashdoth Pisgah, "the streams of P.") The only place near Jerusalem where a periodical "troubling of the waters" is now known to occur is the Virgin's Fountain, which Robinson regarded as Bethesda, and where the Jews still wash to cure disease. If this be the true site, the *Probatike*, or "Sheep place," would be a name referring to the collection of flocks for watering at this spring.

C. R. Conder.

RECENT DISCOVERIES AT CÆSAREA, UMM EL JEMAL, AND HAIFA.

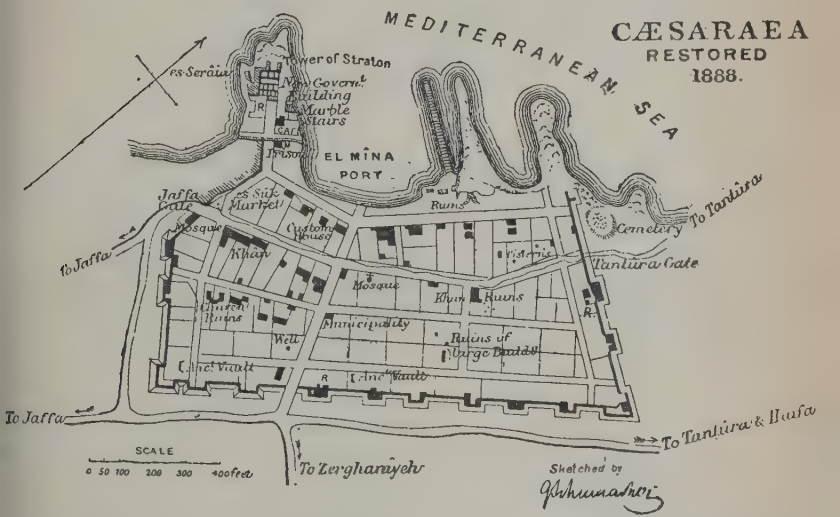
I.

Cæsarea.—The ancient site of Cæsaræa, as already mentioned in former *Statements*, has been restored by immigrants from Bosnia, who, after the Austrian occupation, fled to the Ottoman Empire and found a refuge at Cæsaræa, where extensive parcels of land were granted to them by the Sultan. This place now contains forty-five families of Bosniaks, who erected solid dwellings with tile roofs, which renders the place quite an European aspect, entirely different to the poor huts of their fellahîn neighbours, but their roads remain in a primitive state; no general plan was observed, and frequently disputes arose amongst themselves as to the lots they occupied within the city wall, still existing from the Middle Ages. In consequence thereof, the Government ordered its engineer to lay out the place in equal lots, not exceeding one-third of an acre each, and to construct roads, reserve a market place, a lot for a custom-house and a municipality. The annexed sketch will illustrate the plan of restored Cæsaræa, dividing the plain into seventy-five lots, forty-five of which, as before said, are already occupied, the remainder being in reserve for future Bosnian immigrants.

On the western part of the ancient site a narrow peninsula projects into the Mediterranean, on which the ancient tower of *Straton* was erected. According to Sepp ("Jerusalem und das heilige Land," vol. ii,

p. 573), and Reland, p. 670, a certain Straton of Greece first founded the city, who evidently was a Syrian general, and the fact that the "day on which the kings from the dynasty of the Chasmonians (Chasmonäer) commenced to govern was called the day of conquest of the tower of Straton" illustrates its importance.

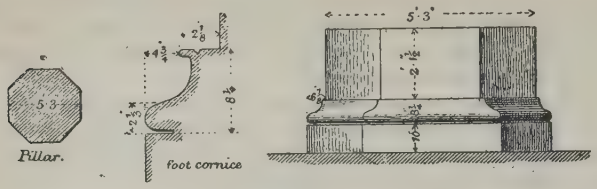
Dr. Sepp further states that in the interior of the tower a "tabula Domini," a table where Christ ate with His disciples (Odorich, 1330, c. 55), was shown. Strabo (xvi, 2) knows the place by the name of the "tower of Straton with a port," and Josephus (Wars, chap. xxi, 5) mentions its fall into decay, and its re-erection by Herod the Great, as well as the foundation of the beautiful city of Cæsaræa. This tower of Straton is no more; the high tower ruin, characterising Cæsaræa in modern times from a considerable distance as such, has been pulled down, and a modest Government building, the seat of a Moudîr, replaces it partially. Many



okes of powder were used to destroy this remarkable monument, with its walls up to 12 feet thick, but its vaults remained in the first storey and may wait a generation more until they are opened; as much as I could make out, these vaults were plastered and must have been used as water reservoirs; the tower, rising to about 60 feet above the sea, was in want of sweet water.

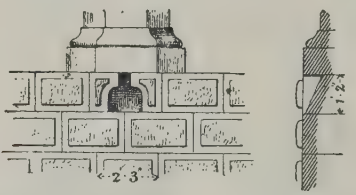
Amongst the *débris* of the floor of the first storey the octagonal pedestals of former pillars were brought to daylight; the pillars had a diameter of 5 feet 3 inches, were yet in all 3 feet 7 inches high, and showed the simple cornice as sketched. They were built of sandstone similar to all the other buildings.

The large building stones of the lower part of the tower are bossed,

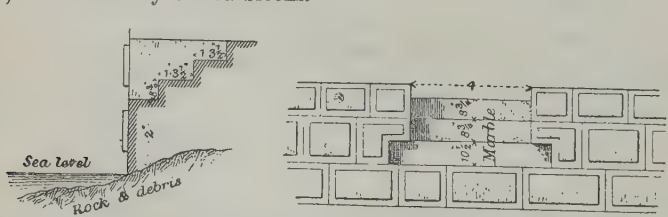


Vault Pillar.

and below the pillar above given, on the eastern front, arranged as sketched.



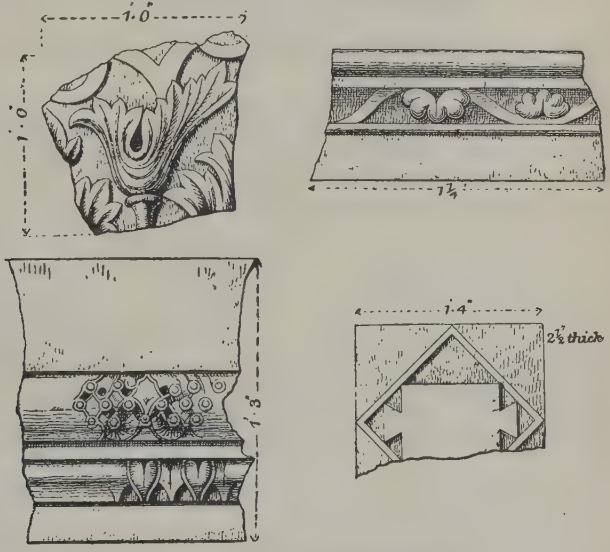
The floor of the tower is similar to the Arab cementing, "Barbarîka," frequently used in this country for floors and roofs; a layer of good mortar, 1½-inch thick, in which small fragments of flint and other hard stones, pieces of brick and tile, are laid, and the whole mass stamped until it hardens. On the north of the tower a stair was opened which evidently led to the small northern harbour; its steps are made of good white marble, 4 feet wide, and each 9¾ inches to 10½ inches high, surrounded by bossed blocks.



The ancient Christian Basilica, in the south-east corner of the Middle-Age city wall, is entirely laid in ruins, and the apses are overbuilt by a Bosniak dwelling-house, while a new mosque is erected a little to the west of it; all I could save were a couple of fine Corinthian marble capitals and fragments of the vaults. The Bosniak houses partly occupy the counterforts of the city wall. Near the southern gate a small vault, 5 feet wide, carefully built, was opened, but immediately filled up with straw, and another, with thirty steps leading into the corridor surrounding the wall on the outside, near the church mentioned; every discovery is carefully hidden by the Bosniaks, who, hostile as they are, fear nothing more than

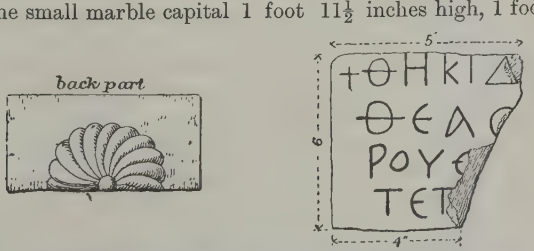
the penetration of foreign elements ; therefore no stranger is welcomed there, and, although they recently were obliged to erect a "Menzûl" or fellahîn inn for travellers or guests, no visitor will remain longer than absolutely necessary, he finding the streets desolate, and no sympathetic friendly face to answer to his wants.

After passing through the gate leading to Zerghanîyeh, I arrived at the depression marking the Roman hippodrome. I here and there found recent excavations, and the field covered with fragments of marble and building stones—of the latter, thousands and thousands being constantly exported to Jaffa. Of the fine marble ornaments brought to daylight, I here add a few sketches.



Marble Ornaments from Cæsarea.

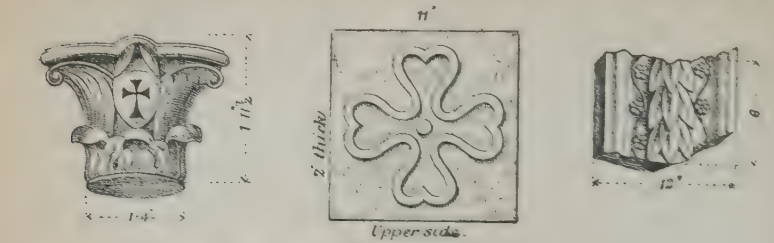
Besides a number of Christian emblems, crosses, laurels, &c., I also found a fine small marble capital 1 foot 11½ inches high, 1 foot 4 inches



Marble Ornament and Greek Inscription from Cæsarea.

in diameter, which shows a carefully-hewn cross on a sort of scutcheon,

and on a planted field next to the Hippodrome a Greek inscription on a



Marble Ornaments from Cæsarea.

marble piece. The Bosnian immigration is still continuing, although on a very small scale.

Umm el Jemâl.—The Jewish colony on this ancient site in the neighbourhood of Zimmârîn will soon be inaugurated; seven buildings are ready for habitation. Of ancient remains very little was found. Large hewn building stones, 4 feet below the surface of the earth, and foundation walls, parts of sandstone columns 2½ feet in diameter, four large cisterns, a small press, and some graves were found: the press is but 3 feet long, and consists of the Nâri-stone. The graves were about 3 feet below the surface, were 5 to 6½ feet long, surrounded by rough stones and covered by limestone plates, and contained some human bones. There was no sign of any carving on the slabs. Just above these graves, on the surface of the earth, there are also signs of an old cemetery of Bedawîn origin, as stated by the fellahîn of the district, and also signs of the wely of a Muhammedan saint under an old oak tree.

Haifa.—In the interior of the present city, near where the southern part of the city wall formerly stood, an old house, said to have been built before the regular settlement of the place commenced, was pulled down, and in the foundations of the new one the masons struck an upright standing granite column with a marble capital and some foundation walls. I tried to convince the proprietor to follow up the subterranean walls, but in this did not succeed. Nevertheless, I brought the capital to daylight, and annex its photograph, from which will be seen that it is of Christian origin, it bearing a cross in the upper part of each of the four sides. The diameter of the column was 1 foot 1 inch; the height of the capital 1 foot 3½ inches. The sculpture is not very fine, but distinct, and resembles the works of Crusade churches.

This column head is actually the first antiquity found within the limits of the present city of Haifa, and I feel convinced that it belonged to a crusading monument. Röhricht ("Zeitschrift Deutsch. Palæst. Verein," Bd. x, 4, pp. 203, 207, 216, 227, 310 ff.), in his highly valuable account on "Studien zur mittelalterlichen Geogr. u. Topographie Syriens," states that, among the properties held by the Crusaders in the 12th and 13th centuries, a house in Cayfas, on this side of the river,

next to the gate which leads to Accon, belonged to the Abbey of Galilee, and on p. 310 he states the existence of a church, "ecclesia S. Mariæ." On pp. 207 and 208 he says that the Church of the Holy Sepulchre had property between Chayfa and Palmarea ("in villa deserta

Marble Capital found at Haifa, from a Photograph.

inter Cayfam et Palmaream sita," etc.). Palmarea must have been built on the actual place where the present city of Haifa stands, while the old site of Cayfa was at Hêfa el 'Atika, on the Râs el Krûm; and the name, the Palm City, owes its origin to the existence of a fine palm grove east of Haifa, near the Kishon river, where still hundreds of palm trees are cultivated, and where here and there cisterns and ruins are found. Also close to the so-called Gate of 'Acca (Buâbet 'Acca) a rock-cut Birket with water channels, and a destroyed tomb, carefully pierced into the solid sandstone rock, were laid open at the construction of a road from said city gate towards 'Acca.

Besides these facts, which already seem sufficient to prove that modern Haifa is analogous to Palmarea, it must be stated that, according to reports from old inhabitants, Haifa (or Hêfa) was built on ground with scattered ruins by Daher el Omar, who destroyed ancient Haifa because that position was too much exposed to the invasions of Bedawîn and the renowned highwaymen of the neighbouring village of et-Tîreh, and built a wall and castle more towards 'Acca, from where he could attend easier to the inhabitants, respectively send them protection, and obliged the old Haifiotes to settle the new place within the wall he built, which settlement was first called el 'Amâra, until the old signification, Hêfa, again became familiar. By old fellahîn Sheikhs now and then 'Amâra is yet named for Hêfa, and this name sounds similar to Palmarea. Briefly, there is no site of an ancient place between Hêfa el 'Atîka and the Kishon on this side of the river except the building ground of modern Hêfa, which must therefore represent Palmarea.

NOTE.

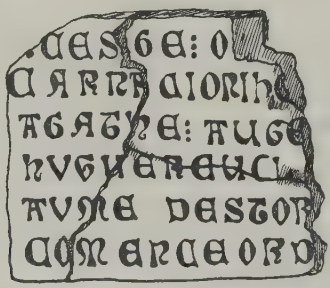
On the last page of the "Zeitschrift D. P. V.," Vol. x, Heft 4, at the end of Röhricht's interesting account I above mentioned, I find a remark by Herr Dr. Wetzstein that Mejd el Kerûm, mentioned in the Name lists of the Palestine Exploration Fund Map, Sh. III, is wrong, and should be called Merj (Merdsch) el Kerûm. As this place is often visited by me, I convinced myself of its true spelling and pronunciation, and can state that the name Mejd el Kerûm, مجد الكروم, the glory of vineyards (plantations, gardens), as called in the Name lists, is the right one, and could, besides this, find no objection to it being a good Arabic word. Both mejd and merdsch are often used in local names, and Mejd el Kerûm has every right to bear this distinguishing name, for its very extensive olive groves produce the finest olive oil found in the surrounding country.

G. SCHUMACHER.

HAIFA, *May 7th*, 1888.

II.

'Acca.—Among the *débris* of a house within the present fortification wall at 'Acca the following inscription was found engraved on a broken marble slab :—



The characters of the above are the so-called (modern) Gothic letters used between the 13th and 16th century, especially by monks. They closely resemble the characters of the inscription on Philip D'Aubigné's tomb at Jerusalem (*Quarterly Statement*, April, 1887, p. 76), and may have been placed on the tomb of a certain "AGATHE," which name is contained in the inscription.

Saida (Sidon).—The Imperial Director of the Museum at Constantinople, H. E. Hamdy Bey, has resumed excavations at Saida, at a place near where the famous sarcophagi were found. He daily employs from fifty to sixty native workmen, but has had no other result yet than to find a necropolis containing some sarcophagi, which had been ransacked before, and were entirely empty.

Beisân.—Natives brought to me last week an interesting mask of a human head, made of pottery, which they found among the ruins of Beisân. I here add a photograph of same. The ears and eyes contain

small holes. The Persian beard is regularly curled—the hair twisted round the forehead in the shape of a garland of pearls; the upper part of the head, the crown, contains ornaments of vine leaves, very primitively made:—

Side view.

Near *'Abillîn* more tombs, cut into the soft limestone rock of the vicinity, were lately found. Most of them contained sarcophagi made of pottery. (*See* description of such, by L. Oliphant, Esq., *Quarterly Statement*, April, 1886, p. 80.) From one of these tombs I purchased a small earthenware lachrymatory (at least, natives pretended that they found it there). The antiquity contains on both broad sides the same figure, holding in its spread arms an animal; and to the right and left of the human head a cross is placed. The whole picture seems, as both sides are exactly alike, to have been stamped into the soft clay. The enclosed drawing shows its natural size and shape.

G. Schumacher.

Haifa, *May* 16*th*, 1888.

ON THE TRANSFERENCE OF THE ARAB NAMES OF SOME OF THE GATES OF THE HARAM ASH SHERIF BETWEEN THE ELEVENTH AND FIFTEENTH CENTURIES.

In the note on the Gates of the Haram which I contributed to Mr. Guy le Strange's translation of Mukaddasi I was misled by the statements of Mujîr ad-Dîn, and by modern tradition, which follows that author. A comparison of the descriptions of Mukaddasi (985 A.D.) and Nâsir-i-Khusrau (1047 A.D.) with each other, and with the description of Mujîr ad-Dîn (1496 A.D.) and existing remains, enables me to correct in great measure the errors in my former note; to identify many of the gates with some degree of certainty; and to show that a change took place in the Arab nomenclature of the gates between the 11th and 15th centuries, possibly when Jerusalem was captured by Salah-ed-Din.

Nâsir describes (p. 41) the Bâb an Nabî (Gate of the Prophet) beneath the Mosque al-Aksa in such terms as to leave no doubt of its identification with the Double Gateway and the passage leading upwards from it, beneath the Mosque, to the Haram area. He also mentions (p. 43) another gate, Bâb al Hittah (Gate of Remission), as being excavated in the ground; and the only known gate of this character in the Haram is the closed Gate of Muhammad, or of the Prophet, beneath the Bâb al Maghâribe. If now we turn to Mukaddasi's list of the gates, we find that he commences with Bâb al Hittah; that his second gate is the "two gates of the Prophet;" and that he ends with the Bâb Dâûd, which is without dispute the Bâb as Silsilah of the present day. The inference I draw from this is that Mukaddasi named the gates in order, commencing with the Bâb al Hittah and ending with the Bâb Dâûd, and not, as I supposed in my former note, at hap-hazard.

In attempting to identify the gates with those which now exist, it is necessary to bear in mind that the Haram area, with its buildings and the approaches to it, have been much altered at various periods, as, for instance, during the Latin Kingdom, after the recapture of the city by the Saracens, and when the walls were rebuilt by Sulaiman in the 16th century.

Following Mukaddasi's list, we have :—

1. Bâb al Hittah (Gate of Remission). The Bâb al Hittah of Nâsir, which was excavated in the ground. This is the present closed gate, Bâb al Borak, or Bâb an Nabî Muhammad, beneath the modern Bâb al Maghâribe. It is called Bâb an Nabî by Mujîr ad-Dîn, who places the Bâb al Hittah in the north wall of the Haram.

2. The "two gates of the Prophet" (Mukaddasi). The "Gate of the Prophet" in the south wall, and beneath the Mosque al-Aksa of Nâsir. The present Double Gate, the Arab name of which is "the Gate of the Old Aksa," as given by Mujîr ad-Dîn.

3. The "gates of the Mihrâb Maryam" (Muk.). These gates must have been close to the Mihrâb Maryam (p. 35), in the south-east corner of the Haram, from which they take their name. They apparently correspond to the Bâb al 'Ain[1] of Nâsir (p. 43), and are now represented either by the closed "Single Gate" in the south wall or by the "Triple Gate."

4. The "two gates Ar Rahmah" (Muk.). The Bâb ar Rahmah and Bâb at Taubah of Nâsir, so called by Mujîr ad-Dîn and by Moslems at the present day. The double gateway known as the Golden Gate.

5. The "gate of the Birkat Bani Israîl" (Muk.). The eastern gate in the north wall is called by Nâsir the Bâb al Abwâb (Gate of Gates). It is now called, as in Mujîr ad-Dîn, the Bâb al Asbât (Gate of the Tribes), and opens to the road over the dam at the east end of the Birkat Israîl.

[1] The Bâb al 'Ain probably derived its name from the Virgin's Fountain, to which the road passing through it led; the Mihrâb Maryam is a reminiscence of the Mary Church of Justinian, built in this part of the Haram; and the Virgin's Fountain possibly owes its modern name to the same source.

6. The "Gate of Al Asbât" (of the Tribes) (Muk.). It corresponds to the Bâb al Asbât of Nâsir (p. 32), which was in the north wall to the west of the "Gate of Gates." It is now called Bâb al Hittah, and was known by the same name to Mujîr ad-Dîn, who gives with reference to it the legend applied by Nâsir to Gate No. 1.

7. "The Hâshimite Gates" (Muk.). These appear to be the gates leading to two cloisters (daryûzah) belonging to the Sufis, said by Nâsir (page 32) to have been in the north wall to the west of the Bâb al Asbât. It is, apparently, the modern Bâb 'Atm, which is called by Mujîr ad-Dîn Bâb al Dewatar, from a school of the same name, and said by him to have been the gate by which Omar entered on the day of conquest.

8. The "Gate of Al Walîd" (Muk.) is possibly the Bâb al Ghawânimah in the north-west corner of the Haram area; it is given the same name by Mujîr ad-Dîn, who says that it was formerly called the "Gate of Abraham."

9. The "Gate of Ibrahîm" (Muk.) is perhaps the same as the Bâb as Sakar, "Gate of Hell," which is the only gate that Nâsir mentions in the west wall: it lay to the north of the Bâb Dâûd (page 31). It is apparently the modern "Bâb an Nâthir," which, according to Mujîr ad-Dîn, was formerly called the "Gate of Michael," and was an ancient gateway. The street "Akabat at Takiyeh," which runs westward from the Bâb an Nâthir, is supposed to follow the line of an ancient street, which supports the view that this gateway is on the site of a much older one.

10. The "Gate of Umm Khâlid" (Muk.). Either the modern Bâb al Hadîd or the Bâb al Kattanîn, which, according to Mujîr ad-Dîn, was in his time, as it is now, near the Gate of the Bath.

11. The "Gate Dâûd" (Muk.) is the same as the Bâb Dâûd of Nâsir. It is now the Bâb as Silsilah (Gate of the Chain), and the adjoining gate Bâb as Salâm (Gate of Peace) is the Bâb as Sakînah of Nâsir (page 43). Mujîr ad-Dîn mentions this double gate under the names Bâb as Sakînah and Bâb as Silsilah, and says that the latter was formerly called the Bâb Dâûd.

One gate mentioned by Mujîr ad-Dîn, the "Gate of Borak," appears to have been completely destroyed when the walls were rebuilt by Sultan Sulaiman in the sixteenth century. He says that the East Gate of the Dome of the Rock, called the "Gate of Isrâfîl," led to the steps of Borak, which were opposite the "Dome of the Chain;" and that opposite the steps was the "Gate of Borak," so called because the Prophet entered by it on his night journey, and named the "Gate of Funerals" because they went out by it. This is apparently the Gate of Jehoshaphat of the Crusaders, but it does not appear to have been in existence when Mukaddasi and Nâsir wrote their descriptions.

The following table shows concisely the proposed identifications:—

Mukaddasi. 985 A.D.	Nâsir-i-Khusrau. 1047 A.D.	Mujîr ad-Dîn. 1496 A.D.	Modern. 1888 A.D.
1. Bâb al Hittah..	Bâb al Hittah ..	Bâb an Nabî ..	Bâb an Nabî, below Bâb al Maghâribe.
2. Bawâb an Nabî	Bâb an Nabî ..	Gate of the old Aksa.	Gate of the old Aksa. (Double Gate.)
3. Gates of the Mihrâb Maryam.	Bâb al 'Ain (?) .. (Gate of the spring)	..	Single Gate (?).
4. Gates ar Rahmah.	Bâb ar Rahmah Bâb at Taubah..	Bâb ar Rahmah Bâb at Taubah ..	Bâb ar Rahmah. Bâb at Taubah. (Golden Gate.)
5. Gate of the Birkat Bani Israîl.	Bâb al Abwâb ..	Bâb al Asbât ..	Bâb al Asbât.
6. Bâb al Asbât ..	Bâb al Asbât ..	Bâb al Hittah ..	Bâb al Hittah.
7. Hashimite Gates.	Gate to the Sufi's Cloisters.	Bâb al Dewatar..	Bâb 'Atm.
8. Gate of Al Walîd.	..	Bâb al Ghawânimah.	Bâb al Ghawanimah.
9. Gate of Ibrahîm	Bâb as Sakar (?)	Bâb an Nâthir ..	Bâb an Nathir.
10. Gate of Umm Khâlid.	..	Bâb al Hadîd or Bâb al Kattanîn.	Bâb al Hadîd or Bâb al Kattanîn.
11. Gate Dâûd ..	Bâb Dâûd .. .. Bâb as Sakînah ..	Bâb as Silsílah .. Bâb as Sakînah..	Bâb as Silsílah. Bâb as Salâm.

The page references are to Mr. Guy le Strange's translation of Nâsir-i-Khusrau, published by the Palestine Pilgrims' Text Society.

C. W. W.

THE TEN TRIBES.

That Israel was carried into captivity the most sceptical will hardly deny in face of the historical tablet which relates how Sargon, in 722 B.C., took 27,280 prisoners from the city of Samaria, and how he supplied their place with foreign colonists.

The question is what became of these Israelite captives, and this is one which has been very variously answered. I do not here refer to the legend of Jeremiah visiting Ireland, and of the "Stone of Bethel" becoming the Stone of Scone, and the coronation stone now in Westminster Abbey, for, as Dean Stanley once observed, this stone is of some kind of sandstone not to be found in Palestine, and certainly not at Bethel, where all is hard limestone; and these mediæval legends no doubt grew up in England long after Christianity reached our shores, much as the Boer in South Africa yet believes that the Promised Land lies not far north of the Transvaal, which belief caused misery and death to

many families during the extraordinary exodus of the "Trek Boers' north of the Zambesi.

But the question what became of Israel, and what is to happen to Israel in the future, has exercised the minds of Jews, Samaritans, and Christians from the Christian era downwards, and has been very variously answered. The Samaritan solution was simple. Israel returned to Palestine about the time when Judah and Benjamin returned to Jerusalem under Ezra. A great gathering in the Haurân was followed by an advance under the guidance of Sanballat the Levite (or the Horonite) to the sacred mountain at Shechem, and of these returning exiles the modern Samaritans are the descendants. Unfortunately, the "Samaritan Book of Joshua," in which this story occurs, is a late mediæval book, full of strange legends, mostly of Persian origin.

In the early centuries of the Christian era there appears to have been great diversity of opinion among the Jews on this subject. In the Mishnah (Sanhed x, 3) we read—"the ten tribes will not return" in the days of Messiah, because it is written "and the Lord rooted them out of their land in anger and in wrath and in great indignation, and cast them into another land as this day" (Deut. xxix, 28). On the other hand, passages were understood by other Jewish writers (Philo and the author of the Apocalypse of Baruch) in a contrary sense—"I will gather the remnant of my flock" (Jer. xxiii, 3), "Israel shall dwell safely" (verse 5), "and I will save the house of Joseph, and I will bring them again" (Zech. x, 6). It was on these passages apparently that Rabbi Eliezer relied in controverting R. Akiba's opinion that Israel would not return to Palestine.

In the second book of Ezdras (xiii, 41–50) we learn that the Ten Tribes are in a country never before inhabited, and called Arzareth, beyond a river which is to be dried up when they return.

This is perhaps the earliest foundation of a legend which attracted great attention in the Middle Ages, and induced adventurous travellers to set out in quest of the ten tribes. Mr. William Simpson has called my attention to passages in the travels of Wolff which tend to show that the idea of the Ten Tribes in central Asia survived to the present century; and other travellers have pointed out that the Nestorians claim to be of Hebrew origin. We may first consider the legends and then the historical foundation on which they rest.

In the Korân we find a legend, no doubt partly of Jewish origin, which relates the journey of Moses in search of El Khudr ("the green one"), who answers to the Jewish figure of Elijah as an immortal and ever present spiritual power. In the region of the Greek and Persian seas (apparently the Black Sea and the Caspian) Moses found a people oppressed by Gog and Magog. El Khudr was the Minister of Dhu el Karnein, "he of the two horns," usually identified with Alexander the Great, who on his coins has rams' horns, and who had drunk of the fountain of life and become immortal. Here also was the place where the sun sets in a miry fountain. Moses built an iron wall between two

mountains to shut in Gog and Magog, and poured molten brass over it (Sura xviii, 59–99). It should be noted that the mention of Alexander the Great tends to show that this story may have been partly of Persian origin—legends of that hero being common in Persia ; and a few centuries later (in Firdusi's Shah-Nama, about 1000 A.D.) we get the same story in Persia, where Gog and Magog are represented as demons and giants who devoured man and beast, and who were shut up inside a wall by Alexander the Great himself.

Sir John Maundeville, in the 14th century, connects Gog and Magog with the Ten Tribes (chap. xxvi), and says that they were shut up till the end of the world between two mountain ranges in Scythia.[1] The Emperor Frederic II says, in a letter to Henry III, that the Tartars were descendants of the Ten Tribes shut up by Alexander the Great in the Caspian Mountains. As time went on, however, and as a Christian kingdom became established in Armenia, the story seems to have migrated east, and the wall was transported to the Great Wall of China in Marco Polo's time (*see* Yule, Marco Polo, i, pp. 50, 250, 257, 259).

As regards the river of the land Arzareth, it would seem that the localisation of the legend points to Arzareth being Erzerum, and the river probably the Araxes ; and it is remarkable that a Persian legend (mentioned by Du Perron) speaks of Zoroaster, when thirty years of age, as crossing dryshod with his followers over the river Araxes, coming from the mythical mountain Elburz, where he received the Zendavesta from Heaven. According to a mediæval Jewish legend the Ten Tribes dwelt beyond the river Sambation, or Sabbatical River. This, though identified with the Ganges (Mid. Bereshith Rabba, 2 ; *see* Neubauer's Geog. Tal., pp. 33, 386), was originally the present Nahr es Sebta, in Northern Syria (Pliny, Hist. Nat. xxxi, 2 ; Josephus, Wars, vii, 7, 5), an intermittent torrent which I have noticed in "Heth and Moab." Josephus says it flows on the seventh day ; Pliny, that it flows six days and rests on the Sabbath. Josephus was nearer the truth, for the rise of the stream is uncertain, and it runs only for a few hours. Thus the mystic river, like the wall of Gog and Magog, was never certainly identified.

Local traditions appear from an early date to have represented the inhabitants of Georgia and Kurdistan and of Bactria, east of the Caspian, as descendants of Israelite tribes.

Thus Benjamin of Tudela, who travelled in the twelfth century from Spain to inquire into the condition of the Jews in the East, speaks of four Israelite tribes in Bactria living under independent rulers. The Nestorian Christians who live in the Kurdish Mountains on the borders of Armenia,

[1] About 1244 Matthew, of Paris, says of the "Enclosure of the Caspian Mountains" : "There dwell the Jews whom God shut in at the prayer of King Alexander, who shall come forth before the Day of Judgment, and shall make great slaughter of all kind of folk. They are shut in by mountains, high and great, and cannot come forth." He thus identifies them with Gog and Magog of the book of Ezekiel.

having been driven by Timur and the Mongols from Mesopotamia, are said to claim to be descendants of the tribe of Naphtali, and are closely connected with the Jews of that region. According to Dr. Wolff (Travels, vol. ii, published 1861), the inhabitants of Merv and Khiva were regarded by the Jews of that region as descendants of Hivites, Perizzites, and Jebusites,[1] who fled from Joshua to the Caspian and went yet farther north in little boats; and the Jews had, it appears, intermarried with Turkomans of Khiva, whom they regarded as Hivites.

Now, if, as I believe to be the case, the Canaanites were a Tartar people, the Bactrian Jews were not so far wrong. The story shows that a Jewish influence must have existed for some time in the Turkoman country, and we are consequently interested in tracing its history.

The corner of Asia with which we are concerned is one which on account of its mountainous character has always been the hiding place of oppressed nationalities, and the existence of a very mixed population in this region is generally admitted. Thus Armenian is an Aryan language full of Turanian words. The Medes of the time of Cyprus were a mixed Aryan and Turanian people. The Georgian language is inflexional, but many of its particles are apparently Turanian, and the term Alarodian, by which the Caucasian languages are described, serves mainly to show how little is known about them. In the Kurds we have descendants of the Parthians, and, till quite recent times, they preserved the Parthian horn bow; and, in addition to these mixed races, the Jews in the Byzantine age, and subsequently when Islam first conquered Persia and Mesopotamia, fled from alien oppressors of other faiths to the region north of the Caucasus, between the Crimea and the Caspian.

In this connection it is interesting to note that rude sculptures occur both in Turkestan and in Southern Russia, which have been supposed to be of Scythic origin. We may finally discover in these monuments akin to those of Asia Minor and Northern Syria; one of these statues, described

[1] In another passage he includes the Hittites. Now the Hittites were by no means a "peculiar people," they were only one out of numberless Tartar tribes, and it is remarkable that a great tribe existed west of Manchuria, called Khitai (bounded on the west by the Gobi desert, on the north by the Pohai Tartars, and on the south by China); their language approached the Mongol and the Tunguse. Here, rather than among the mixed populations of Georgia, we may seek the Hittite type. The history of the Khitai is traced back to 230 A.D. Their name is said to mean "tattooed," or "painted red"—a practice found among Etruscans, Romans, Guanchos, and Hottentots, who all painted themselves red in sign of rejoicing: but it may have other derivations. (See J. R. A. S. xiii, II.) Tch'ang Te, travelling in 1259 in Turkestan, west of Kuldja, was told that the Kitai formerly dwelt there. Plano Carpini, in 1245, found the "Black Khitai" east of the Aral Sea. Rubruquis, in 1253, says they used to dwell near Lake Balkash (*see* Schuyler's Turkestan, I. note 3). Thus the Khitai were believed to come from Turkestan itself, where languages closely akin to the ancient Medic and Akkadian are still spoken.

by the Chinese traveller Sui-Sun, near Lake Issyk-Kul, represents a man girt with a sword, and placing his left hand to his forehead (compare the Hittite figures for this attitude), and in the same vicinity, north-east of Kashgar, Colonel Tchaikofsky found a human face, with a long text in a character which he supposed to be Thibetan. Further information as to the supposed Scythian statues would be of interest.

No less than 700 Hebrew tombstones, with inscriptions dating from about the second to the tenth century, have been found in the Crimea. The sect of the Karaites, to which these Jewish emigrants belonged, was akin to that of the Sadducees, and their alphabet was the square Hebrew which originated in Aram. They appear to have begun to spread northwards in the Roman age, during which the Jews, already strong in Egypt and in Mesopotamia, were dispersing all over the Roman world, and had their cemeteries also at Naples, Rome, and elsewhere in Italy (*see* "Syrian Stone Lore," p. 228). The same kind of movement which drove the Karaites to the Caucasus may, without any great improbability, have driven some of the Israelite captives from Assyria at an earlier period to the same region ;[1] but, on the other hand, the whole account may be of Jewish origin.

Carmoly, in his valuable notes on the Khozars, shows us how the Karaites came to be so numerous in this region. The Khozars, or Khazars, were a Turkish people who lived west of the Caspian, which was at one time called the Sea of the Khozars. They occupied the Crimea and the region of Daghestan, near Derbend. It is related by Moses of Khorene that they invaded Armenia about 178–198 A.D. In 449 they were under the power of the Hunns. In the 6th century they were sufficiently powerful to attack Persia, but Khosru Anurshiwan is said to have shut them in by building the Caucasian wall, of which the ruins are said to exist in the passes of Daghestan, near Derbend.[2] In 625 Heraclius made peace with the Khozar king near Tiflis. In 661 Rabiat el Bahli was sent by the Khalif to attack the Khozars, but they allied themselves with the Greeks and repulsed him. In the 10th century their power appears to have extended from the Sea of Asof to the Crimea. The Mongols subdued them in 1221, and found many Christians among them.

To this pagan kingdom the Jews fled from Christian persecution in the time of the Byzantine Emperors Basil I and Leon VI, and later on the Christians fled to the same region from the Moslems. It is related by Moses bar Nachman, and by others, that in 740 A.D. a certain Is-hak Sindjari converted the King of the Khozars to Judaism, and many of his subjects became Jews. This curious kingdom is described by Ibn Haukal in 921 A.D., and by Mas'udi in 943 A.D. In 958 the Minister of

[1] In 2 Kings xvii, 6, we read that Israel was taken to Halah, Habor, and "the cities of the Medes." Media lay just south of the Caspian.

[2] Such defensive walls were of early construction. Arrian (iii, xviii) says that Alexander found the Persian Straits blocked by a wall with towers south of Ecbatana (Hamadan) as he advanced into Media.

the Spanish Khalif, 'Abd er Rahman III, who was a certain Chasdai Ibn Is-hak Ibn Ezra Ibn Sprot, hearing of this Jewish kingdom n the Caucasus, wrote a letter (which Carmoly gives) to the Khozar King, which was answered. These letters were published by Is-hak Akrish in 1575. In 1175 the Jewish traveller Petachia, of Ratisbon, set forth to find the Ten Tribes, of whom the Khozars now claimed to be representatives, and, passing through Persia and Media, he found the tribe of Issachar in the mountains beyond—in the Khozar country.

According to Ibn Haukal, in the 10th century there were 6,000 Moslems among the Khozars. The king was a Jew, with 1,200 soldiers; and at the city of Asmid was another allied Jewish king.

Some Khozars were Turks, black-haired; some were very dark, like Indians, some lighter (perhaps Aryans); the latter, he says, sold their children—as the Georgians have always done. They practised the "happy despatch" (like the Chinese), and called their king, who was always a Jew, the Kha-Khan.

Mas'udi, twenty years later, says that all the Court of the Khozar kings consisted of Jews who had come from Moslem and Christian countries. There were pagans of different races among them, and some burned their dead and practised suttee—probably Aryans. They traded in the skins of black and red foxes.[1]

There is thus little difficulty in understanding the mediæval ideas about the Ten Tribes. The region in which they were supposed to dwell was the region where the Jewish Kingdom of the Khozars actually existed from 740 to 1220 A.D.—nearly five hundred years—together with the adjoining regions in Bactria, east of the Caspian, which were no doubt influenced by them. Hence the confusion with the Tartars, and with the biblical Gog, for it is generally admitted that Gog (*see* Ezekiel xxxviii, xxxix), connected with Tubal and Ashkenaz (*cf.* Gen. x, 2), represents a Caucasian people.

The legend of the wall originates either in the wall which Alexander stormed in Media or in the later wall of Chosroes, north of the Caucasus, which was built before the Koran and the Shahnamah were written. The story of the river is older, since it is mentioned in Ezdras—probably in the same region (Arzareth; perhaps the western region Arzah of the Persians, Bundahish xi, 4); but, as already mentioned, it is connected with a Persian legend. Those who in more recent time have sought the

[1] There was a great skin trade with the north in Crusading times, when *Vair*, the skin of the Siberian squirrel, was so highly esteemed. The *peltry* or "skins" of the Land of Darkness are mentioned by the mediæval geographers, and the trade with the unseen inhabitants of these Arctic regions is noticed by Ibn Batuta and Abu el Feda (*see* Col. Yule's "Marco Polo" ii, pp. 414, 415). From a recent paper in the "R. E. Journal" I gather that the Jewish early population in the Caucasus is not yet extinct. In Daghestan and the districts near it about 30,000 souls still reside, but as a decreasing population. Their most remarkable custom is the painting of the face (like Jezebel) by the women, who are said to paint broad bars of yellow and red across the face.

lost tribes in Bactria[1] have, it seems, forgotten the existence of this Jewish influence, lasting for five hundred years on the shores of the Caspian, and extending much further east, for there were Jews in China, as Ibn Batuta mentions—and even as early as the 2nd century A.D. A Jewish-Chinese text of 1511 speaks of a synagogue in Pien in 1164 A.D.

But, while the fact of the eastward spread of the Jews is thus historically traced, it is certainly curious that they regarded themselves as descendants of tribes other than Judah and Benjamin. They may have been preceded by Israelites of those tribes, but it is equally probable that the reason lies in their own knowledge of Bible history, which recorded the return of the two tribes under Ezra. Nor must it be forgotten that a descendant of Asher is mentioned in Jerusalem in the New Testament (Luke ii, 36).

C. R. C.

THE HITTITE MONUMENTS.

Southampton, 23*rd May*, 1888.

The series of articles in *Nature*, based on the lectures of Mr. Thomas Tyler (January, 1888), having now terminated, I would beg to be allowed to make a few remarks on his work. I have no desire to raise controversy, or to force my own views on any who may not agree with me, but, Mr. Tyler having seen fit to allude to my work, and to bring charges of inaccuracy against me, it is evident that I may be considered as bound to answer. Another reason for speaking lies in the fact that many of Mr. Tyler's comparisons are either identical with, or closely similar to, those which I have put for-

[1] In a very interesting paper, Sutlej Pujahs (J.R.A.S. xvi, 1), Mr. Simpson quotes from Bellew's Journal of a Political Mission to Afghanistan, 1837, who again quotes from Afghan legendary histories an account of the Tabut i Sakinah, or "Ark of the Shekinah," among the Afghans, who call themselves Beni Israil. The Hebrew history may, as he suggests, have come into Afghanistan with the Moslems, but there is another possible origin. One of the authorities quoted is Habb ben Mania, "the Son of Manes." Now the Bundahish agrees with Mas'udi in making the Turko-Tartar tribes in Turkestan, and as far as China even, Manicheans, in the 10th century or earlier, and Manes included Jewish ideas in his great syncretic system.

The word Tabut is applied by Shi'ah Moslems (who have much in common with the Manicheans) to a model of Husein's tomb.

Arks were very commonly used in Asia by the Babylonians and Egyptians and Phœnicians, as well as by the Hebrews. The Canaanites had arks, according to a text translated in "Records of the Past," as early as 1600 B.C. The Khitai in Cathay, in the 10th century, had a consecrated tent used as a temple during their war expeditions.

As regards Manes, however, it should be noted that the legendary ancestor of the Kirghiz in Turkestan was the giant called Manias.

ward at different times between 1883 and 1887; and, although Mr. Tyler is clearly acquainted with my writings, he has not thought fit in these cases to acknowledge my priority. Not that I stand alone in this respect, because in some cases discoveries by Professor Sayce have in the same way appeared in these papers without note as to their origin.

I first began to study these monuments in 1880, and have devoted nine years of leisure time to the subject with the assistance of very well known scholars; and I may perhaps, therefore, be allowed to remark generally that Mr. Tyler's papers show only an imperfect knowledge of his subject. He claims to set forth "just principles," and to found his work on "very recent" discoveries. Yet, with exception of a seal from Tarsus, which, as he allows, advances our knowledge very slightly, he refers to nothing which has not been known for many years to students of the subject, while, as regards principles, I am at a loss to understand what these are, unless they be the Pythagorean and abstract meaning of one or two emblems—a speculation which Professor Sayce last year dismissed with a curt (and I fear I must say contemptuous) note in the Academy. Mr. Tyler has picked out a few emblems here and there in an arbitrary manner. He has not adopted the only methods which seem capable of giving scientific results, namely—1st, the comparison of all the combinations in which any emblem is known to occur; 2nd, the comparison of Altaic emblems with known phonetic and ideographic values in other systems; 3rd, the use of the *sounds* recoverable from Cypriote.

Before noticing details I would ask to be allowed to explain the principles on which I have attempted the decipherment, which are either not understood or else ignored by Mr. Tyler. It appeared to me that the emblems must be treated as a cypher is treated, by observing the relations which they bear to each other in as many cases as possible—a method by which Mr. Tyler might have avoided palpable errors. It further appeared to me that a knowledge of the ideographic (or picture) value of the emblems was attainable by comparison with the use of similar emblems in other systems—such as cuneiform Egyptian and Chinese—rather than by relying, as Mr. Tyler so often does, on conjectural values based on nothing but arbitrary suppositions.

Finally, in 1883, after consultation with the lamented Dr. Birch, with Dr. Isaac Taylor, and with Professor Sayce, I came to a conclusion which the first of these authorities suggested to my mind, but which was not then held by the other two, namely, that the Hittites were a Turanian tribe, and that their language was probably akin to the old Turanian speech of Chaldea and Media.

To Professor Sayce is due the discovery that in the Cypriote emblems we have the hieratic forms of the Hittite emblems. This suggestion seemed to me at first unproven in view of the eight comparisons in Dr. Taylor's "History of the Alphabet" (six of which are, I think, wrong), and of Professor Sayce's comparisons with the early and inaccurate copies of the Hittite texts. When, however, I became possessed of complete lists of these Cypriote characters it became clear to my mind that Professor

Sayce's principle was sound, and I have now proposed forty such comparisons.

From the Cypriote emblems *sounds* are derivable, which, as Dr. Taylor saw, might serve to fix the language of the texts. It does not appear to me that Professor Sayce made sufficient use of these sounds when he attempted to decipher the texts (*see* his proposed readings in Wright's "Empire of the Hittites"), and it was through these sounds, and through an analysis of the "cypher value," so to speak, of each emblem, that I arrived at the results published last year. No scholar had, as far as I know, before that date been able to show either the phonetic or the grammatical values of the emblems in such a manner as to connect them with an Asiatic tongue. The values assigned had always been as arbitrary as was the assumption that the texts are historical.

During the present year I have published (*Quarterly Statement*, April, 1888) the results of another year's study of the question, and have shown in a manner which has met with acceptance from many scholars that the proposed values agree, not merely with the sounds of the dead languages of Media and Akkad, but with those of the living Turko-Tartar and Ugric languages—a result further confirmed by comparative study of 30 personal and 200 geographical names from the Hittite country.

The present state of the question is this: Dr. Isaac Taylor has lately expressed his present belief that the Hittite chiefs were Turanians, and his opinion on my recent paper is most satisfactory to me.

Mr. T. G. Pinches and Mr. G. Bertin, who are probably the best Akkadian scholars in England, have told me that the important words *Ku* and *Ma* on the bilingual are (as I urged) Akkadian. Mr. Bertin, author of the "Grammar of Cuneiform Languages," just published by Trübner, states that he thinks my comparison with Akkadian represents the safest method of study, and Mr. Pinches believes that a people speaking some such tongue must have lived near Carchemish. Professor Sayce, while regarding the Vannic language (akin to Medic) as the best for comparison, is also, I believe, now in agreement as to the Mongolic type of the Kheta, and as to the agglutinative character of their language.

I might then afford to disregard the opinion of a writer who seems as yet imperfectly acquainted with the subject, were it not that he charges me with inaccuracy in a manner which I feel to be undeserved.

All that I claimed in 1887 was to have discovered the group to which the Hittite language belonged, and to have commenced the decipherment on principles not arbitrary or conjectural. The method which I adopted has obtained increasing favour with scholars, and I feel no doubt that the discovery of the language will in time lead to a complete decipherment.

As regards the proposed comparison of Hittite, Vannic, and Medic with the Georgian and other languages of the Caucasus, all that can at present be said is that these languages have been tried, and have not

served to give such results as are obtainable from the Ugro-Tartar Group.

I now proceed to substantiate the statements which I have made as to Mr. Tyler's papers, in detail. So far as he reproduces the work of Chabas, Brugsch, and Perrot, and the later publications of Dr. Sayce, which are available to the general public in Wright's "Empire of the Hittites," his work may be useful, but these are not new discoveries, since Chabas wrote his monograph in 1866, and Professor Sayce's chief discoveries date from 1876 and 1880. I am also in agreement with him in those cases where he apparently adopts suggestions of my own. As regards his original work, I think that it will tend rather to produce controversy and confusion than to contribute to the cause of science.

Mr. Tyler states that certain hypotheses ("and vagaries") repugnant to the scientific spirit have of late been advanced, yet he himself adopts, without question, two most improbable ideas: 1st. The existence of Hittites (as an empire or otherwise) throughout Asia Minor. 2nd. The Hittite origin of all monuments on which a curly-toed boot is represented. As regards the first, the Bible, the Egyptian monuments, and the cuneiform texts agree in representing the Hittites as an important tribe of Northern Syria. The monuments speak of no Hittites elsewhere, nor does Herodotus or any other ancient author. It is certain that there were tribes of kindred race and civilisation north, north-west, and north-east (and I believe also south-east) of the Hittites; but when Mr. Tyler adopts my view [1] as to the independence of these various tribes he might also set an example in discontinuing to use the unscientific term "Hittite" in describing the Altaic or Turanian hieroglyphs.

As regards the curly-toed shoe,[2] Mr. Tyler might have satisfied himself that the Egyptians wore it, for there are several pairs in the British Museum. The Etruscans and Armenians alike wore it, as did and do the Crusaders, the Turks, and the Arabs and Kurds. It is not unlike the Chinese and old Japanese shoe; and it is somewhat absurd to class ancient peoples by their boots, especially when the information relied on is so partial and misleading.

The pigtails of the Kheta were, I believe, first noticed by Dr. Birch. I called attention to them in 1883.[3] Mr. Tyler does not refer to the latest information (the casts by Mr. Flinders Petrie), and he should have known

[1] See "Heth and Moab," 1st edition, p. 422, 1883; "Syrian Stone Lore," 1886, p. 23; "Altaic Hieroglyphs," 1887, p. 8, &c.

[2] Dr. Sayce calls this a "snowshoe," and says it is adapted for walking on snow. It is true that it resembles a skate of old-fashioned form in having a curl in front, but it bears no resemblance to any snowshoe worn by northern peoples. These are always large flat surfaces for distributing weight. As I have attempted to walk on snow in the ordinary Turkish shoe, I may be allowed to say that it is less fitted for the purpose than an English boot. Sir C. W. Wilson put forward a much sounder comparison some time since with the boot now worn in Asia Minor.

[3] See "Heth and Moab," 1st edition, p. 22.

that Rosselini's drawings have been found not to be thoroughly reliable. He would then have avoided the error of reproducing these in Fig. 2. The comparison with the Manchu Tartars which follows represents the theory which I have steadily advocated now for five years. Some of his observations on the point are, however, of value. The pigtail is certainly not characteristic of female figures, as he states Professor Sayce to have asserted; what is represented in the case of females is probably a long plait of hair like that worn by the Etruscan women. The British Museum contains a magnificent example of these long braids in the terra-cotta figure of an Etruscan woman.

Mr. Tyler allows that the word *Sar* cannot be purely Semitic when it is suffixed. The remark is not new, but Mr. Tyler omits to point out that in Akkadian *Sar* for "prince" or "chief" has just this position (as I noted in 1886),[1] and that it is a very common Turanian word, whence the Russian *Tsar* is derived. In the next sentence he refers to *Bek* as Mongolian, but unfortunately forgets that the words he quotes are names not of persons, but of towns. I have recently shown[2] that the word occurs as meaning "fortress" or "shrine" in many Tartar and ancient Turanian dialects.

Mr. Tyler thinks that the figures at Boghaz Keni represent kings and Amazons. He does not say what nations used to stand erect on the backs of lions and of two-headed eagles. He omits the figures with wings which occur in this sculpture, and he does not refer to the well-known representations of Asiatic deities erect on various animals. As to the supposed "mural crowns," he reproduces an observation by Professor Sayce, but I confess that Perrot's original drawings, from which he gives a somewhat inaccurate sketch, do not indicate mural crowns, but only bonnets such as are still worn by Tartar women. The sticks in their hands are not curved, as he supposes, and certainly do not represent bows. As to the Amazons, even they did not ride two-headed eagles—Herodotus mentions them as Turanians in Scythia—and it is to Professor Sayce that a suggestion of their connection with the Hittites is due. I hope hereafter to demonstrate that they were Tartar queens.

The mandrake theory does not demand more than a passing notice. In none of the known systems of hieroglyphic writing does the mandrake appear as an emblem. The Hittite (or Altaic) emblem appears to mean "male deity."

As regards the bilingual, which Professor Sayce first recognised as such, Mr. Tyler's proposals are ingenious, but not likely to be accepted. In the first instance, his reading of the name of the country is clearly wrong. The characters, as Mr. Pinches and Professor Sayce have seen, read *Urme*, not *Zume*. The emblem bears no real resemblance to the cuneiform *Zu* at any period, but is clearly the cuneiform *Ur* or *Eri*, even in comparatively early forms.

The suggestion that these hieroglyphs represent a Semitic speech

[1] "Syrian Stone Lore," p. 16.

[2] Palestine Exploration Fund, *Quarterly Statement*, April, 1888, p. 82.

contradicts the opinion of all who have given much attention to the subject. Semitic writing, as known to us, is syllabic or alphabetic—as is natural for an inflexional language—and not ideographic, as is natural to non-inflexional speech. A word like *Saeer*, containing a strong guttural, would probably be represented by two syllables, and if the second emblem on the bilingual be compared with the earliest form of the emblem *dim*, used in Akkadian, it will be seen that this value is more probable than is the tri-syllable *Kutimme*. As to the cone, Mr. Tyler follows Professor Sayce in rendering it "king," but regards the double cone as meaning "people." This is purely arbitrary, since in no known hieroglyphic system does any parallel exist, whereas, if it mean "country," which would upset Mr. Tyler's reading, it may be compared with emblems for country and mountain in Egyptian, in cuneiform, and in ancient Chinese.

Mr. Tyler is, I think, wrong in regarding the fifth emblem as unique, since it resembles an emblem often found on other texts; and certainly it in no wise suggests an idiogram for country. As regards the sixth, he adopts a comparison which I suggested in 1887[1] for the first time, only he gives the Assyrian value instead of the Akkadian,[2] in which he is, I think, wrong, since the Akkadian is the older, and because a series of strokes represents the plural in other hieroglyphic systems. According to the values which I obtain from Cypriote sounds, the Hittite emblems (so called) read *Tark-dim-Ku-ma-erme*. *Ku* and *Uk* occur for "king" in Akkadian, according to many scholars, and recall the Chinese *Chu* (older *Ku*) and the Tartar *ok*, meaning "Lord." *Me*, *Ma*, *Mu*, is a common word for "country" in Ugric speech. *Me*, for the plural, is known in the Medic, and, according to Professor Sayce, also in Akkadian.

Mr. Tyler is also unaware of the meaning of the word Tarku, or Tarkon. It is a common Tartar word for chief, and has been traced from Siberia as far as Italy, where Dr. Taylor has recognised it in the Etruscan Tarquin.[3]

As to the idea that some of the emblems on the boss are inverted, it may be noted that ancient scribes were not accustomed to write upside down as a rule.

Mr. Tyler regards the comparisons of Cypriote and so-called Hittite as "visionary." I must leave him to settle this with Mr. Perrot, Professor Sayce, Dr. Taylor, Dr. Deecke, and the other well-known scholars who hold the opposite view. The resemblances are often so remarkable and exact in detail as to leave no doubt on the mind. It is natural to suppose that the Cypriote or Asianic script, belonging as it does to the same country in which the older Altaic hieroglyphs are found, bears to them the same hieratic relation that the later Egyptian writing does to the monumental hieroglyphics of Egypt, or that the cuneiform

[1] "Altaic Hieroglyphs," Plate IV, Fig. 10.

[2] "Altaic Hieroglyphs," p. 161, Plate II, Fig. 14, p. 48.

[3] See Palestine Exploration Fund, *Quarterly Statement*, April, 1888, p. 78.

bears to the archaic Akkadian ideograms. We have also transitional inscriptions found of late, which serve to connect the early and the later incised forms.

Mr. Tyler states that I have not given the Hittite emblems in my latest work "with such essential accuracy as is desirable," but he cannot substantiate this assertion. I have studied the original monuments and the casts, and have drawn the emblems from these. Mr. Tyler's rude sketches are often clearly from drawings and photographs, and I am prepared to point out the inaccuracies of these sketches, and of his reproduction of the Yuzghâd Seal, of which a good photographic reproduction was published in 1886.[1]

As regards the texts occurring on statues of the gods, I adhere to my previous statement. At Boghaz Keui some figures, not reproduced by Mr. Tyler, are winged. The others, standing on animals, have been recognised as deities by Professor Sayce, and any student of ancient symbolism will know that he is right. A text from Jerabis, not yet in England, occurs on a plaque presenting a winged female figure. One of the figures at Ibreez certainly represents a deity. The Babylonian bowl is generally admitted to have on it a votive text, and the question of religious connection is thus reduced to a few texts which present a very similar group of emblems to those found on the texts above noticed.

Of course the "analogy of (historic) Assyrian inscriptions" cannot show that other texts must be historic, for this is purely begging the question. There are innumerable ancient texts, Akkadian, Egyptian, Assyrian, Etruscan, and Greek, which are votive, not historic. The Akkadian magic texts, as I have before noticed, present a very close parallel to my proposed readings of the so-called Hittite texts. The great stone lion in the British Museum, which I compared with the Lion of Merash (a comparison which Mr. Rylands afterwards adopted), bears an invocation to Istar; and I am unable to see that "heads of oxen and asses" have any necessary connection with war.

Mr. Tyler has not thought fit to explain my views or to state the language which I recognise on these monuments. He selects one of the most fragmentary and defective of the texts, and gives the impression that the gaps on the monument are gaps in my decipherment. Even then there is more that is consecutive than in his own arbitrary selection of portions of certain groups. If the order of the words as I place them were in accordance with English syntax, that would be a certain mark of ignorance on my part. Turanian syntax is entirely different from either Aryan, or Semitic, or Egyptian syntax. We have to deal with a language of suffixes, with a verb placed at the end of the sentence, with post-positions and affixes. It is because I am able to identify these in their proper grammatical position, and because I have recognised (as Professor Sayce admits) "packets" as in agglutinative speech, and small suffixes with larger strong roots (as he also admits), that I

[1] Proceedings Soc. Bib. Arch., November, 1886. Note by Mr. E. A. W. Budge.

feel safe in identifying the general structure of this new dialect of Turanian speech.

Mr. Tyler states that "the Hittite inscriptions are in the main ideographic or pictorial." That they are not purely pictorial is very easily proved. That they are ideographic is one of my chief contentions, and indeed I do not feel sure that I have not rather exaggerated than otherwise the exclusively ideographic value of some of the emblems.

As to the Yuzghâd Seal, I do not think any scholar will suppose it to represent the "successful chase of the stag," and Mr. Tyler's reproduction contains errors on which he bases assertions. The seal, like the Tarsus Seal, is one of a large class, possibly of Turanian origin, and probably used as amulets. The Babylonian sun deity and the bull-horned Ea occur on it, but it is as doubtful if any of the emblems have value as ideograms as in other cases. The supposed "trident" does not even in Mr. Tyler's sketch (and still less on the original) resemble a trident at all, but a tree. As regards the curious emblem (Fig. H.), Mr. Tyler adopts my suggestion that the crescent moon is intended,[1] but there is no reason why he should select the triangle only out of the several phonetic emblems which occur with it. The supposed "baby" on the Yuzghâd Seal is not a baby on the original, nor do monumental females hold unfortunate infants by the neck, but nurse them in their arms. I am not acquainted with ancient races who adored triangles, though the cone was a Phœnician sacred emblem.

Mr. Tyler's suggestion to read all the texts "hind before" will not meet with approval. All scholars are agreed that the Hittite emblems face to the beginning of the line (a comparison of H. 1, 2, 3, 5, and J. 1, is sufficient evidence), just as in Egyptian or in the early Akkadian cuneiform. It follows that all Mr. Tyler's attempts to read are vitiated by his error in reversing the texts, as well as by his arbitrary selection of a few emblems, which is contradicted by comparative study of the groups.

Mr. Tyler regards the emblem, which he incorrectly describes as a parallelogram and two squares (which is not the normal form), as "the sign for plurality." Further study will show him his error. The emblem is known in more than ninety cases, and is very frequently a prefix. In no Semitic tongue is the plural prefixed, nor is the plural emblem prefixed in any Asiatic system. It is true that Bantu languages have prefixed plural sounds, but Mr. Tyler will not find such a language in Western Asia. Clearly he is wrong about a very important emblem, and wrong because of insufficient comparative study. The Cypriote *Ne* so exactly compares with the emblem in question as to make it certain that the common demonstrative and personal pronoun of that sound, found in numberless Turanian dialects, ancient and modern, is to be recognised, and this identification, which I proposed last year,[2] has been admitted to be probable by various scholars, including Professor Sayce.

[1] "Altaic Hieroglyphs," p. 182.

[2] "Altaic Hieroglyphs," p. 39.

That the closed hand[1] represents "power" is also not a discovery of Mr. Tyler's, but a remark which I believe I was the first to make, and he cannot claim priority in fixing the value of the "foot" for going.[2] I might add a great deal in confirmation of the ideographic values which Mr. Tyler here gives—a year later than myself. The idea that the figure (Fig. K.), which commences several texts, represents "a servant," rather than a king, also suggests an observation which, I believe, was not made by any previous writer, but which I have somewhat lengthily elaborated, to the effect that this attitude signifies "supplication."[3]

The suggestion that the Babylonian bowl was carried to Babylon as a trophy I made in 1886,[4] and I am not aware that it is to be found in any book before I first made a note on the subject. As to the supposed "agricultural implements," I am familiar with the threshing sledge used in the East, and see no resemblance to the Hittite emblem, nor is Fig. N. at all like a plough, or like any ancient representation of a plough. If Mr. Tyler had compared the various recurrences of this emblem, he would not have selected this cut. The figure above (M.) is like the oldest form of the cuneiform *Ri*, and like the Cypriote *Ri*. It occurs in the name of a deity on the bowl, and there was a well-known Akkadian deity called *Ri*.

As regards the Shaduf, the suggestion is due to Professor Sayce, as should have been acknowledged. The explanation of the final group of the Hamath stone No. 3 is, to my mind, most improbable. The emblems are really used phonetically, and the supposed ideographic value is based in part on a copy from a very imperfect cast. The very abstract and philosophical meaning attributed to the emblems is not supported by our knowledge of other hieroglyphic systems.

As regards the emblem which Mr. Tyler supposes to represent Ashtoreth (and apparently he thinks that all gods had this name), no sound argument is given in support, and the group, Fig. Q., No. 2, is not correct. The identification of the sacred tree is due to Professor Sayce. The identification of the heads below, as representing "spiritual beings," agrees with a view which I proposed last year, only I regard them as demons and Mr. Tyler as gods.[5] The gods are not, however, so represented by ancient peoples, whereas similar heads representing demons are often found in Etruria and are known in Chaldea. The opposed attitude is also that in which demons are often represented, as I have long since remarked.[6] Horns are proper to demons in many ancient systems.

Mr. Tyler takes up Professor Sayce's discarded view that the Hittite emblem for deity really represents city. There is an argument in favour of its meaning deity which he overlooks. The very group which he

[1] "Altaic Hieroglyphs," pp. 52-192.
[2] "Altaic Hieroglyphs," p. 54.
[3] "Altaic Hieroglyphs," p. 53.
[4] "Syrian Stone Lore," p. 26.
[5] "Altaic Hieroglyphs," p. 206.
[6] "Altaic Hieroglyphs," p. 93.

sketches (Fig. R.) occurs on a seal, with a star (the common Akkadian emblem for deity), instead of the conventional eye.[1] As regards the central emblem, it is not always lozenge-shaped; and, as regards the eagle, Mr. Tyler adopts my view that it is the celebrated sun eagle, but does not acknowledge the loan.[2]

The remaining groups require no notice. They are read backwards, and separated from their context in an arbitrary fashion. The value *su su* is given to the emblem, which a careful comparative study would show Mr. Tyler to be the *Me* of the bilingual, and two ideographic values are borrowed from my system without acknowledgment. The remarks on Fig. U. are due to Mr. Tyler's having worked from a photograph. Had he carefully inspected the original text, he would have seen that the weathering is represented on the photograph in a misleading fashion.

The Tarsus Seal belongs to a large group. Mr. Tyler should have mentioned the Lydian and Cappadocian cylinders figured by Perrot, which are much more instructive, but in the same style, representing deities of Turanian or Semitic origin.

As regards the supposed triangle, it is, I think, a cup, like that often held by deities. It is unfortunate that in Fig. Y. a broken cuneiform emblem is reproduced lying on its side. There are numerous complete examples of this archaic form known, and in these a stroke, broken off in the specimen selected, exists, and shows that it is not a triangle, but perhaps, as Mr. Bertin thinks, a cup.

The comparison of the ankh with a Phœnician and a Hittite emblem is, I think, sound; I first proposed it in 1883, and have compared the Phœnician and Egyptian also in 1886.[3]

It would have been more to the purpose, had Mr. Tyler noted that the Cypriote value is *Er* or *Ra*, which as a Turanian word means "power."[4] The triangle has clearly no connection. The Indo-Scythian coin is also very different, and these coins are much too late to compare safely.

Mr. Tyler doubts the age of the texts. He forgets that in one case at least there is evidence that the text is older than 1340 B.C.[5]

It is no great pleasure to me to write this criticism; but before charging me with inaccuracy Mr. Tyler must look at home. He has not fairly represented my method or principles, and his proposals, as I have shown, repeat those which I have made ideographically in the majority of the emblems of which he treats. I have much yet to say on this important subject, but the above is a sufficient answer to Mr. Tyler's papers.

C. R. Conder.

[1] "Altaic Hieroglyphs," p. 245.
[2] "Altaic Hieroglyphs," p. 82.
[3] "Syrian Stone Lore," p. 72.
[4] Palestine Exploration Fund, *Quarterly Statement*, April, 1888, p. 100.
[5] "Altaic Hieroglyphs," p. 156.

EARLY RACIAL TYPES.

The publication of the photographs from casts taken by Mr. Petrie in Egypt gives us very valuable and authentic material for the consideration of racial types as early as the 14th and 16th centuries B.C.; but the study of these types will not be complete until these pictures are compared with the representations of race which occur in Asia Minor, Mesopotamia, Phœnicia, and Etruria.

The cuneiform texts appear only to distinguish two races, , "race bright," and , "race dark," as mentioned also in the story of Sargina. The Egyptians, on the other hand, distinguished four races: 1, white (Lybian); 2, brown (Asiatic); 3, red (Egyptian); 4, black (Negro), all of which are traceable as early as the 16th century B.C.

The Bible distinguishes three races: Japhet "the fair," including the people of the Caucasus and some tribes of Asia Minor; Ham, whose name comes from a root meaning "hot," whence the Assyrian Khammu, "midday," or the "south;" and Shem, including the peoples usually called Semitic, and apparently meaning "dusky."

On the monuments now copied there are five very distinct types: 1, white, blue-eyed, with light hair; 2, the red Egyptian; 3, the bearded Semitic people, reddish or yellow; 4, the Negro; 5, the hairless brown or orange race, with receding forehead and a big nose from straight to aquiline.

As regards complexion, there are several points to be considered. In some cases the colours have faded, so that we have green eyes and hair. In other cases figures are alternately red and yellow for pictorial effect. As regards the red, it is not certain that this represents natural skin colour. The Guanchos, the Etruscans, the Romans, the Hottentots, and the Red Indians alike have had the custom in different ages of colouring themselves. The Zulus paint white, the Hottentots orange, the Guanchos painted red, white, yellow, and green. The Red Indians also paint themselves many colours. Again, in Etruscan pictures the men are very red or dusky, but the women are white. The great terra-cotta group in the British Museum represents an Etruscan woman yellow, and the man with her is dark or sunburnt; yet the type of face is exactly the same: on Etruscan vases and in Etruscan tombs the men are painted red and the women left white. The colours on the monuments are, therefore, not a safe guide for the student.

As regards the four Egyptian races, the following reflections occur to me after comparing the photographs with other authentic representations:—[1]

[1] The following are the types with which I am familiar in Syria. 1. The Aramean; dark, red-brown, aquiline, heavy beard, as seen in the Fellahin. 2. The Arab; dusky, aquiline, scanty hair and beard, and very much lighter build. 3. The Turkoman; approaching the Turk, with Turanian round head

1. The light people with blue eyes may be an early Aryan type. The Kabyles probably offer the nearest approach — a long-headed white race, with blue eyes and light hair, on the south side of the Mediterranean. The Guanchos seem to have been much the same. The cheekbones are said by Mr. Wallachs to be prominent, the nose straight, the forehead somewhat receding. The Guanchos were a tall well-made people. If it be the case that one of these light people is an Asiatic, it seems probable that the early Aryans spread in Western Asia earlier than scholars are inclined to suppose, and there can be little doubt that they existed in the Caucasus some time before 500 B.C. How they reached Lybia is at present unknown; perhaps by sea from Greece, or perhaps through Syria.

2. As regards the Egyptians, it is to be observed that the early statues at Boulak, like the heads from a tomb of the 6th dynasty, represent a very different type from that of the time of Rameses II; the nose is straight, the features generally less marked, and there is no beard. But this might be due to increased care in drawing.

If the reader compares this earlier type[1] with the heads of the Cappadocian deities,[2] or with the round-headed beardless type found at Tell Loh, he cannot fail to be struck with the resemblance. The later aquiline type is that presented by the mummy of Thotmes III (which I saw in 1882) and of Rameses III. It resembles the Abyssinian finest

and projecting cheekbones. The Greek, the Jew, the Persian, the Copt, the Abyssinian, the Circassian, the Georgian, the Armenian, and the Negro may also be studied in Palestine. In South Africa I have studied the Bantu (Bechuana, Basuto, and Zulu), the Hottentot, and the Bushman. In Turkey I was much struck with the Mongolian appearance of the peasantry. In Egypt I found the Fellah to be quite different to the Syrian peasant, and hardly Semitic at all. The Copt, the pure Arab, the Berberi, and Nubian I have also observed in Egypt. The type of the Red Indians who visited England struck me as very different from what I had expected, the figures being so very thick-set and the cheekbones very broad. There is a certain affinity to the Aztec and the Red Indian in the Hittite and in some Etruscan types, which is very curious. Dr. Taylor, in 1872, classed some at least of the American languages in the Turanian family.

[1] The Cushite stock—if the Tell Loh pictures are correctly described—must have been darker than the Semitic, approaching black. The "race (or blood) dark" of the Akkadian is rendered *Adamatu* "red" in the Assyrian. The dark ruddy colour of the Palestine Fellahin is at once recalled, and this might be the complexion of the Egyptians—very different from the greyer colour of the pure Arab. The modern Egyptian Fellah, like the Copt, has probably much Turanian blood in his veins. The later Egyptian language approaches in structure more closely to Turanian syntax than does the earliest Egyptian dialect.

[2] Investigating the Carian words which have survived, I find them to be all apparently Turanian, and some Scythian words given by Herodotus seem to have the same origin. The Carians were akin to the Cappadocians and Hittites, who were also Turanian.

type, and the dressing of the hair (see the great wig in the British Museum) recalls that of the non-Arab tribes of the Soudan.

3. The Semitic type is very clearly marked by the aquiline features, the beard, and generally by the head-dress, resembling the modern Kufeyeh. The side curls, plaited and often very long, which occur on these photographs, were worn by the Phœnicians, and are still worn by the Bedouin.

4. Both the Rutennu and the Hittites present a Mongolian type, with brown or orange complexion, sometimes reddish. Generally, but not always, they are beardless. The hair appears to be dark, when coloured at all. The Rutennu, in some cases, are more Mongolian than the Kheta, whose noses are often aquiline. The receding forehead and chin and aquiline nose occur, however, among the modern Kirghiz. The general type is not unlike the extremely exaggerated Etruscan type, with a big long nose, high cheekbones, and very slanting eyes, with black hair and receding forehead. The pigtail of the Kheta is not known in Etruria. The heads on Hittite monuments (such as J., I and III) approach the Egyptian representation of some of the Kheta. The Kheta chiefs were perhaps not pure Mongols, but had Semitic blood in their veins; but the head of a modern Kirghiz is as like the Hittite type as it is possible to conceive. The Kirghiz are a mixed Turko-Mongolian race, speaking a Turkic language. The bearded big-nosed heads at Ibreez are illustrated by a bearded Kheta chief on these monuments. In Chaldea, also, we have bearded non-Semitic portraits,[1] and bearded figures occur also in Etruria.

The two races of the cuneiform documents were perhaps the Northern Aryo-Turanian and the Southern Egypto-Semitic. The new monuments appear to connect Kush with the Egyptians (as does the Bible). The division agrees with the present scientific view as to the relationship of Aryan and Turanian, Semitic and Egyptian languages, but the early home of the southern race is still doubtful.

[1] The Bible connects the Canaanites and the Philistines with the Egyptians and the Cushites; and the Hyksos, the Kheta, and the later Egyptian facial types are not far apart, but the Egyptian and Kheta languages are very distinct. Although race does not of necessity involve language, it seems to me that the distinction has of late been exaggerated. It must be to a somewhat late period that a change of language in any race is to be attributed, otherwise language would not develop at all. The approximation of Kheta and Egyptian types may be due to the infusion of Semitic blood in both. It seems that the division in Genesis x is geographical rather than ethnic, belonging to an age when it was already impossible to distinguish race very clearly, since the migrations of the various stocks had been going on for many centuries, and mixed breeds of all kinds already existed. There were, however, most Semites in the south-east or east, most Aryans in the north, while Ham ("the south") included the Turanian Canaanites and the Asiatic Egyptians. The Egyptian language shows how very early Turanians reached Egypt, importing 150 Turanian words into a distinct language which is nearer in structure to the Semitic. By 2000 B.C. also a large Semitic element had found its way to the Delta.

It may be regarded as fairly certain that the Turanians came from the region south of the Caucasus and perhaps from further east, and the Aryans perhaps divided off, and had their home in the valleys of the Volga, and the Don ; the southern race perhaps belonged originally to the Mesopotamian valley. As to the European origin of the Aryans, the evidence is not strong, and the subject has not been worked out to its full bearings. Scholars have argued for a Semitic race in Chaldea preceding the Akkadians, and there are no river-valleys in Arabia to form their home. Either they reached Arabia from the Nile in Africa, or they spread south from the Euphrates, which appears most probable, since the true Egyptian type has been long since pronounced to be Caucasian, and is very different from the Negro, the Nubian, or even from the type of the people of Pun, which is nearer perhaps to the Bantu.

The identification of the names of some of the tribes represented at Karnak is tolerably certain, including Amorites, Hittites, the Shasu, or nomadic Arabs, the Derdeni, or Dardanians (a bearded people), the Rutennu, or Canaanites, and the inhabitants of Ascalon and Damascus. Others, such as the supposed Etruscans, Cicilians, Sardinians, and Teucrians, are, to say the least, doubtful. If the Pulistha be correctly identified as Philistines, it is interesting to note that their headdress is the same worn by the Takrui, or supposed Teucrians. Their appearance is non-Semitic, and perhaps Turanian. This would seem to agree with Hitzig's theory that the Philistines were akin to the Pelasgi, or pre-Aryan race of Greece, and the Philistine names in the Bible often appear to be non-Semitic.

The peculiar helmet of the Shakalsha is found also on statues from Cyprus, and other Cyprian statues (called Phœnician) give headdresses very like that of the Pulistha. Some of these statues are beardless, with slanting eyes.

In this connection it seems important to consider the evidence lately brought forward in support of the supposition that the Aryans were of Finnic extraction. The arguments are three :—1st. Comparison of the roots of Aryan and Finnic speech. 2nd. The fair complexion of the Aryans, supposed to indicate a northern origin. 3rd. The early existence of words in Aryan languages denoting a northern European fauna and flora. Neither of these arguments is, however, very strong. 1st. The roots in question are found also in Akkadian and in Tartar languages, as well as in Finnic and Aryan. 2nd. The fair race has preserved apparently its blue eyes and light hair, though dwelling for two or even four thousand years in North Africa. 3rd. The fauna and flora are not peculiar to Northern Europe, as has been supposed by those supporting this theory. This last point may be noticed in detail. The oak grows well in Palestine and Asia Minor. The beech is found all over the north of Asia, and the birch in Turkestan and Mongolia. Snow and ice are common in Palestine and Turkestan. The bear, the wolf, the stag (roe and fallow deer), the goose, the crane, the starling, the wasp, and the bug, all occur in Syria

and in Central Asia. The eel is very susceptible of cold, the oyster occurs in the Persian Gulf. Barley is common, wheat is scarce, in Palestine. The elk occurs in the Caucasus and in North China. The seal is found in the Caspian and in the Aral, and Lake Baikal. The salmon in Asia Minor and in the region of the Hindu Kush, as well as in Algiers. Thus the linguistic evidence on which the new theory has been based crumbles away when examined by the aid of such a work as Wallace's "Distribution of Animals," or Tristram's "Natural History of the Bible." It also appears that the horse must have been known to the early Aryans, and the home of the horse is certainly not in Finland, but in Central Asia.

The general result of such considerations seems to show how much caution is required in treating the question of the early populations of Western Asia.

C. R. C.

NOTES ON THE PLATE.

Turko-Tartar types.

No. 1. From photograph of a Kirghiz Tartar in Schuyler's "Turkestan," vol. i, page 42.
No. 2. Tartar boy of Tashkent, from same, vol. i, page 142.
No. 3. Tartar elder, from same, vol. ii, page 28.
No. 4. Samarkand Tartar, from same, vol. ii, page 107.

Canaanite.

No. 5. Hittite from Karnak monument, cast by Mr. Flinders Petrie (compare No. 1).
No. 6. Rutennu, from the same.
No. 7. Syrian, bearded, from the same (compare No. 3).
No. 8. Syrian, from the same.

Asia Minor and Syria.

No. 9. From Hittite text, J., I (compare the cap with Nos. 2 and 3): the pigtail is curled up.
No. 10. Beardless God at Pterium. From Perrot (vol. iv, page 639, "Histoire de l'Art").
No. 11. King from Ibreez, perhaps Semitic, but with a Hittite text (Sketch by Davis), same publication, page 725.
No. 12. Rutennu, from cast by Mr. Flinders Petrie (compare with 2, 4, 9, 10).

Akkadian.

No 13. Head of a statue from Tell Loh, from photograph in de Sarzec's "Découvertes en Chaldée;" found with Akkadian texts.

TURANIAN TYPES.

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Vincent Brooks, Day & Son Photolith

No. 14. Same source (compare the cap with No. 1).
No. 15. Bronze figure, same source, bearded, but with non-Semitic features (compare No. 3).
No. 16. Same source (compare Nos. 1 and 5).

Western.

No. 17. Etruscan, after a sketch by Dr. Isaac Taylor.
No. 18. From Cyprus, supposed to be Phœnician (from Perrot's "Hist. de l'Art," vol. iii).
No. 19. From Cyprus (same source), perhaps female. This type with slanting eyes and long nose is also found on Etruscan monuments.
No. 20. Cyprian (same source).

Southern.

No 21. Pulestha (Philistine?), from Karnak monument. Cast by Mr. Flinders Petrie.
No. 22. Takrui (Teucrian?), same source, showing same head-dress.
No. 23. Ascalon, a male captive, from cast by Mr. Flinders Petrie.
No. 24. Early Egyptian type (same source).

There are many other similar heads in the various collections from Egypt, Cyprus, Asia Minor, Chaldea, and Etruria, giving the round-headed beardless types, with broad cheekbones and eyes sometimes slanting as on this specimen plate.

NOTES ON CALVARY.

In a pamphlet published in 1886 at Jerusalem, and in a recent letter to the "Sunday School Times" in America, Dr. Selah Merrill intimates that, in advocating the site at Jeremiah's Grotto as Calvary, I am appropriating discoveries of Otto Thenius in 1849, and of Fisher Howe in 1871. I have never seen the works of either writer, and do not know what they may say as to Calvary. It is very probable that this hill suggested itself to many visitors as the true site; but what I was, I believe, the first to publish was not the *theory*, but the *tradition*, connecting the site with the Jewish place of execution. Dr. Merrill mentions this tradition without giving his authority, but he fails to point out that this was the chief reason for my fixing on the site. When I was in Jerusalem in 1874–75 the site of Calvary was regarded by residents as being a knoll west of that which I suppose to be the site. Dr. Chaplin, as I have said, called my attention to the Jewish tradition, and sent Jews to see me on the subject. Our enquiries then established the site to which they referred, and, as far as I know, this was never previously brought to public notice. From what he says, Dr. Merrill is apparently afraid lest this discovery should be attributed to himself, and the present note may serve to relieve his apprehensions.

C. R. C.

THE CROCODILES IN THE NAHR EZ ZERKA.

The only place in Palestine where—according to natives—crocodiles are found is the Zerka river, near Cæsarea. They are mentioned as *crocodrils* by Sir John Maundeville. The following passage from a tract of the 13th century is interesting, as perhaps founded on some fact which may account for the presence of crocodiles in this river. The salt pans mentioned are those at El Melâh and elsewhere along this coast, as mentioned in the "Palestine Survey Memoirs":—

"From Chastel Pelerin (Athlit) one goes to Cæsarea. The city stands by the sea, where one finds on the right hand (*i.e.*, of the road the salt pans of the Hospital of St. John, and then by the sea one finds Pauperdu, a tower of St. Lazarus (*i.e.*, of the order so called). On the other side, to the left hand inland, is a church of Our Lady of the Marshes (*i.e.*, of the Zerka), and there come many folk in pilgrimage from Cæsarea and from Chastel Pelerin. In this marsh are many cocatrices—fierce beasts which were put there by a rich man of Cæsarea, and he had them fed, for he would have them devour his brother, because of a quarrel he had with him, and for this he had them brought from Egypt. And one day he brought his brother to bathe, secretly to slay him. And his brother was wiser than he, and made him go down first, and the beasts which he had fed so soon dragged him down that he might never be found, and the treason was known through those who had agreed to it, and thus was the traitor lost and his brother saved."—(*See* "Publications de la Société de l'Orient Latin, Serie Géographique III," p. 191).

C. R. C.

NEBI DHAHY.

In the "Memoirs" (vol. ii, p. 132) I have given the legend of the dog who buried Neby Dhahy or Duheiyeh. This may be connected with Dahya el Kelbi (the dog-like Dahya), who was one of the early converts to Islam before the Battle of the Ditch.—(*See* Rodwell's "Koran," p. 409.)

C. R. C.

THE "*VIA MARIS*."

I have read with much interest Herr Schumacher's survey of "The Jaulan," and shall be much obliged to any reader of the *Quarterly Statement* who will explain the ground for his identification of the *Via Maris* of antiquity with the caravan road which bisects Upper Jaulan in the direction of Akka and Haifa, as described on page 65 of the English translation of his work.

The question is of some importance in connexion with the right interpretation of Isaiah ix. 1, and S. Matthew iv. 13 to 16. Commentators are

J. DREHER IMMEDIATELY NORTH OF THE GREAT ORANGE GROVES OF **JAFFA, SYRIA,** 1½ MILE FROM THE ET ABOVE SEA-LEVEL. LATITUDE 32° 4′ N., LONGITUDE 34° 47′ E.

James Glaisher, *F.R.S.*

eading at 9 a.m.		Vapour, 9 a.m.			Degree of Humidity.	Weight of a Cubic Foot of Air.	Wind.								Calm, or nearly Calm.	Mean Amount of Cloud.	Rain.	
							Relative Proportion of										Number of Days on which it fell.	Amount Collected.
Wet Bulb.	Dew Point.	Elastic Force of Vapour.	Weight in a Cubic Foot of Air.	Additional Weight required for Saturation.			N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
47°7	41°4	grs. ·293	grs. 3·3	grs. 0·9	79°	grs. 545	0	4	4	9	9	2	0	0	3	5·8	17	ins. 5·32
51·4	46·3	·313	3·5	1·7	67	536	0	3	1	11	1	5	1	0	7	5·3	12	4·29
55·4	50·4	·366	4·1	2·0	68	531	1	5	1	4	3	2	6	2	7	6·0	7	2·28
59·7	52·9	·401	4·3	3·3	57	522	0	0	0	1	5	10	5	3	6	5·8	5	1·22
66·7	60·7	·530	5·6	3·8	60	514	0	3	1	0	0	7	8	7	5	2·7	1	0·12
72·6	67·3	·670	7·1	3·9	64	508	0	0	0	0	0	20	4	5	1	1·8	0	0·00
78·8	75·3	·875	9·3	3·2	74	502	0	0	0	0	0	22	6	2	1	2·4	0	0·00
75·6	69·6	·725	7·7	5·0	60	503	0	0	0	0	0	18	1	5	7	2·5	0	0·00
72·3	69·2	·715	7·7	2·2	78	512	0	3	0	1	1	15	4	4	2	2·2	0	0·00
71·3	65·5	·627	6·7	4·1	64	511	2	4	0	2	2	5	3	3	10	3·1	3	0·45
64·2	58·2	·485	5·3	3·2	62	521	0	2	3	7	2	5	0	0	11	4·1	6	4·95
50·6	44·3	·292	3·3	2·0	61	536	0	5	2	6	11	2	2	0	3	5·8	15	10·05
63·8	58·6	·523	5·7	2·9	66	520	Sums. 3	Sums. 29	Sums. 12	Sums. 41	Sums. 34	Sums. 113	Sums. 40	Sums. 31	Sums. 63	4·0	Sums. 66	Sums. 28·68
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

divided. Some take the words "Way of the Sea" to mean merely the inhabitants of the neighbourhood of the Lake; others restrict the words to the tract of land *west* of the Lake; others again seem to place "The Way of the Sea" wholly "beyond Jordan," or *east* of the Lake. Following a hint given by Lightfoot (Chorog. Cent., ch. 71), I had thought that "The Way of the Sea" might be a narrow strip or "full line" of dry land on the east coast of the Lake, belonging to Naphthali, whereon the fishers of Naphthali might "draw out their nets," for (according to Lightfoot) the Lake was wholly within the territory of Naphthali.

In the midst of all this uncertainty, it is refreshing to learn that the *Via Maris* is simply a "well-known and important commercial highway" connecting Damascus with the Mediterranean Sea; that it crosses the Upper Jordan at the Bridge of Jacob's Daughters; and that it is much frequented, though in a ruinous state, at the present day. Perhaps Josephus (Ant. v, i, 22) is merely alluding to the point at which the *Via Maris* crosses the Jordan, when his words *seem* to include the city of Damascus within the portion of Naphthali—an interpretation which Lightfoot (*l. c.*) says "would be ridiculous."

Can the identification of the *Via Maris* of Isaiah ix, 1, with Herr Schumacher's "third principal and caravan road" be substantiated? And, if so, what does the phrase mean in Kings xix, 43?

CHARLES DRUITT.

METEOROLOGICAL OBSERVATIONS.

1880.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; of these, the highest appear in the winter, and the lowest in the summer months. The maximum for the year was in January, viz., 30·269. In column 2 the lowest in each month are shown; the minimum, 29·489 ins., was in April; the range of readings in the year was 0·780 inch. The numbers in the 3rd column show the range of readings in each month; the smallest is in October, being a fifth of an inch, whilst the largest is in April, being somewhat more than half an inch. The numbers in the 4th column show the mean monthly pressure of the atmosphere; the largest is in January and the smallest in July.

The highest temperatures of the air in each month are shown in column 5. The highest temperature in the year was 103° in May, but the temperature exceeded 90° in every month from April to November. The first day in the year the temperature reached 90° was on April 12th, and there were two other days in this month when the temperature was more than 90°; in May there were five days when the temperature reached and exceeded 90°; the highest, 103°, took place on the 23rd. In June there were two such days, in July six days, in August seven days, in September

nine days, the highest of which, on the sixth day, was 102°; in October four days, and in November one day—on the 4th, when the temperature was as high as 96°, and this was the last day in the year of such a high temperature as 90°; therefore the temperature reached and exceeded 90° on 36 days in the year.

The numbers in column 6 show the lowest temperature of the air in each month; in January it was as low as 32° on two different nights, and was below 40° on three other nights; in February it was as low as 32° on one night, and below 40° on four other nights; in March it was as low as 34° on the 17th, and below 40° on two other nights; and the temperature was not below 40° in any other month of the year: therefore the temperature at night was as low as 32° on three nights, and it was below 40° on thirteen nights in the year. The yearly range of temperature was 71°. The range of temperature in each month is shown in column 7, and these numbers vary from 25° in August to 53° in both April and May.

The mean of all the highest temperatures by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, 10, respectively. Of the high day temperatures the lowest was in January—58°·5—and the highest in July, August, and September. Of the low night temperatures, the coldest, 42°·9, took place in January, and the warmest, 69°, was in August. The average daily range of temperature, as shown in column 10, in January—15°·6—is the smallest, whilst that in December was of nearly the same value; and the largest was in May—23°·9.

In column 11, the mean temperature of each month, as found from observations of the maximum and minimum thermometers only. The month of lowest temperature was January, 50°·7, and that of the highest was August, 79°. The mean temperature for the year was 66°·4.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb thermometer taken daily at 9 a.m.; and in column 14 the monthly temperature of the dew point at the same hour, or that of temperature at which dew would have been deposited. The elastic force of vapour is shown in column 15, and in column 16 the water present in a cubic foot of air in January was as small as $3\frac{1}{4}$ grains, whilst in July it was as large as $9\frac{1}{4}$ grains. The numbers in column 18 show the degree of humidity, saturation being condensed as 100; the smallest number is in April, and the largest numbers are in January and September. The weight of a cubic foot of air under its pressure, temperature, and humidity at 9 a.m. is shown in column 19.

The most prevalent winds in January were S.E. and S., and the least prevalent were N. and N.W. In February the most prevalent was S.E., and the least prevalent N. and N.W. In March the most prevalent were N.E. and W., and the least prevalent N. and N.W. In April the most prevalent was S.W., and the least were N., N.E., and E. In May the most prevalent were W. and its compounds, and the least N., S.E., and S. In June, July, August, September, and October the most prevalent were the S. winds, and the least prevalent were N., E., and its compounds.

In November the most prevalent were S.E. and S.W., and the least prevalent were N., N.W.; and in December the most prevalent wind was S., and the least prevalent were N. and N.W.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the month with the smallest amount is June, and the largest March. Of the cumulus, or fine weather cloud, there were 111 instances in the year; of these there were 15 in May, 17 in June, 18 in July, and 19 in August, and but 2 only in each of the months February and December. Of the nimbus, or rain cloud, there were 58 instances in the year, of which 12 were in January, 12 in February, and 13 in December, and but 3 only from May to October. Of the cirro-cumulus there were 38 instances; of the cirrus, 41; of stratus, 10; and cirro-stratus, 5. There were 103 instances in the year of cloudless skies, of which 15 were in September, 12 in June, 12 in October, 10 in August, and 9 in May and November.

The largest fall of rain for the month was in December, 10·05 ins., of which 1·37 in. fell on the 7th, 1·24 in. on the 8th, and 1·08 in. on the 6th. The next largest falls for the month were in January, 5·32 ins., and in November, 4·95 ins., of which 2·15 ins. fell on Nov. 28th, and 1·11 in. on the 29th. No rain fell from the 2nd of May till the 18th of October, making a period of 168 consecutive days without rain.

JAMES GLAISHER.